Analysis of publications by Weill Cornell Medical College researchers, 2006-2010

Paul Albert, MLS, MA, Weill Cornell Medical Library, paa2013@med.cornell.edu
Diana Delgado, MLS, AHIP, Weill Cornell Medical Library, did2005@med.cornell.edu

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Objective

We intend to identify patterns of Weill Cornell Medical College researchers who publish in scholarly journals. We will analyze those publications in which Weill researchers publish most frequently and show how frequently this group publishes in journals of various ranges of impact factors.

Methods

On January 4, 2011, we searched ISI's Science Citation Index for all articles or reviews written by an author with an affiliation of "Weill" (most articles do contain such affiliation in the address field) for each of the last five years (2006, 2007, 2008, 2009 and 2010), using the "Timespan Limit." Publications retrieved, using the "Analyze Results" tool, were analyzed and grouped by number of publications per journal title. ISI restricts users from displaying more than 500 results at a time. We analyzed the 500 journals with the highest number of publications per

year. This strategy allowed us to capture journals for which there were two or more papers published per year and 58.7% of journals for which there was only one publication. We sampled 88.1% of the 6,729 papers our initial search yielded (see sheet in attached spreadsheet, *Sampling*). For each of the 1,191 journals from our sample, we identified the 5-year impact factors from ISI's 2009 Journal Citation Reports®, Science Edition. For journals that did not have a five-year impact factor, we substituted the 2009 impact factor listed (these journals are denoted by an asterisk). In cases where no impact factor was available, "N/A" was listed.

Discussion

There are several liabilities of this analysis and of bibliometrics in general. These include:

- This analysis only includes authors whose Weill affiliation is listed in Science Citation Index, omitting, for example, authors who have dual affiliations and choose not to include their Weill affiliation.
- This analysis omits other scholarly contributions including book chapters, editorials, and papers presented at conferences.
- This analysis may omit some 2010 publications that were not indexed at the time of this analysis.
- An author's contribution to a given publication was not quantified. For example, this analysis makes no distinction between papers by a single author as compared to a team of authors. Nor does this analysis make a distinction between first or last author, or a paper written by 10 Weill authors vs. one contributing Weill author.
- The ISI "Analyze Results" tool offers different numbers of publications per journal (± about 6%) when a given year is analyzed in its entirety as compared to when performing a separate search for each publication.
- Analyzing papers from the 500 journals with the highest number of publications per year did exclude 41.3% of journals in which there was only one publication in a given year. Based on a cursory analysis, this did not seem to introduce systematic bias.
- Some specialty journals, as prominent as they are, will never yield the same impact factor as a journal that has a more general scope. These types of limitations of impact factors are various and too numerous to discuss here, but are reviewed elsewhere:
    - Kumar V, Upadhyay S, Medhi B. Impact of the impact factor in biomedical research: its use and misuse. Singapore medical journal. 2009;50(8):752.
    - Monastersky R. The number that's devouring science. The chronicle of higher education. 2005;52.
    - Seglen PO. Why the impact factor of journals should not be used for evaluating research. BMJ. 1997 Feb 15;314(7079):498-502.

Results

Table 1. Articles or reviews in high-impact journals by Weill authors

Source Title	Impact	2006	2007	2008	2009	2010	Total
New England Journal of Medicine	51.41	5	7	9	6	9	36
Annual Review of Immunology	41.485		1				1
Nature Reviews Molecular Cell Biology	38.26					2	2
Nature Reviews Cancer	34.983	1				3	4
Annual Review of Biochemistry	33.51	2					2
Nature	32.906	5	4	5	6	8	28
Cell	32.628	5	7	1	4	7	24
Annual Review of Neuroscience	32.618		1				1
Science	31.052		2	2		4	8
Nature Reviews Immunology	31.037	1		2			3
Nature Reviews Neuroscience	29.814	3					3
Nature Genetics	29.768		2		3	3	8
Lancet	29.443		3		3	3	9
Nature Medicine	27.991	6		4	4	2	16
JAMA-Journal of The American Medical Association	27.753	5	1	4	3	8	21
Nature Biotechnology	27.62	1				5	6
Cancer Cell	26.636	1	1	2	2	3	9
Nature Reviews Genetics	25.583	1					1
Annual Review of Cell and Developmental Biology	25.533				1		1
Nature Immunology	25.339	2	2	3	5		12
Cell Stem Cell	23.563			2	2	1	5
Annual Review of Pharmacology and Toxicology	21.483			1			1
Immunity	19.555	1	3	4	1	1	10
Nature Cell Biology	19.062				3	2	5
Nature Reviews Microbiology	19.049				3		3
Cell Metabolism	19.021	1	1	1	3		6
Annual Review of Biophysics and Biomolecular Structure	18.367		1				1
Annual Review of Physiology	17					1	1
Nature Chemical Biology	16.738				2		2
Nature Neuroscience	16.617	3	3	2	2		10
Journal of Clinical Investigation	16.592	4	2	4	7	7	24
Annals of Internal Medicine	16.552	3	1	1	3	2	10
Archives of General Psychiatry	16.433	2		1	2	2	7
Journal of Clinical Oncology	15.969	3	6	4	12	11	36
Annual Review of Pathology-Mechanisms of Disease	15.825		1				1
Journal of the National Cancer Institute	15.62		1	3			4
PLoS Biology	14.798	2	2				4
Neuron	14.674	5		2	2	7	16
Journal of Experimental Medicine	14.609	5	5	3	5	4	22

Source Title	Impact	2006	2007	2008	2009	2010	Total
Genes & Development	14.198	1	1	3	1	3	9
Developmental Cell	14.058	1	2	3			6
Circulation	14.049	2	9	5	2	2	20
PLoS Medicine	14.023	4					4
Molecular Cell	13.929	3	3	4	8	4	22
Current Opinion In Cell Biology	13.634	2				1	3
Cell Host & Microbe	13.021			1	1		2
Gastroenterology	12.432	2		2	1	2	7
American Journal of Human Genetics	12.162	1			1	3	5
Advanced Drug Delivery Reviews	12.08		1				1
Frontiers In Neuroendocrinology	12.039			1			1
Angewandte Chemie-International Edition	11.848			2			2
Nature Structural & Molecular Biology	11.67	1			2	5	8
Journal of The American College of Cardiology	11.624	3	2	3	4	4	16
Current Biology	11.571		1				1
American Journal of Psychiatry	11.395		4	1	1	3	9
British Medical Journal	11.284				1		1
Genome Research	11.077	1			1		2
Hepatology	10.912	1	4	2		2	9
Immunological Reviews	10.857		1	4			5
Annual Review of Medicine	10.609			2	1	2	5
Proceedings of the National Academy of Sciences of the United States of America	10.312	16	16	19	36	34	121
Neuroscience and Biobehavioral Reviews	10.141	1					1
Journal of Cell Biology	10.121	2		3	3	6	14
Current Opinion In Structural Biology	10.015				3		3
PLoS Genetics	10			3			3

Table 2. Journals in which Weill authors publish most frequently

Source Title	Impact	2006	2007	2008	2009	2010	Total
Proceedings of the National Academy of Sciences of the United States of America	10.312	16	16	19	36	34	121
Journal of Biological Chemistry	5.44	28	19	23	19	15	104
Blood	9.9	10	12	20	18	17	77
Journal of Neuroscience	7.93	13	14	12	17	13	69
Journal of Urology	4.021	9	16	12	15	12	64
Journal of Immunology	5.847	13	8	11	12	16	60
Cancer Research	8.194	14	12	8	10	11	55
BJU International	2.764	13	8	19	6	8	54
Clinical Cancer Research	6.768	8	9	13	13	6	49
American Journal of Cardiology	3.493	12	15	8	10	4	49
PLoS ONE	4.383		4		2	41	47
Urology	2.435	13	11	5	7	5	41
New England Journal of Medicine	51.41	5	7	9	6	9	36
Journal of Clinical Oncology	15.969	3	6	4	12	11	36
Archives of Pathology & Laboratory Medicine	2.303	2	12	5	8	8	35
Journal of Sexual Medicine	4.884	6	9	11	3	4	33
Biochemistry	3.253	5	8	8	7	5	33
Cancer	5.551	4	3	8	9	7	31
Nature	32.906	5	4	5	6	8	28
Journal of Virology	5.127	7	6	4	8	3	28
Developmental Biology	4.689	4	3	9	8	4	28
Neurosurgery	3.847	4	4	7	6	7	28
Neurology	7.199	7	9	6	2	2	26
Molecular Biology of the Cell	6.2	3	5	3	7	7	25
American Journal of Roentgenology	3.052	1	10	3	5	6	25
Cell	32.628	5	7	1	4	7	24
Journal of Clinical Investigation	16.592	4	2	4	7	7	24
FASEB Journal	7.096	4	4	6	3	7	24
Journal of Neurochemistry	4.206	6	3	7	8		24
Neuroscience	3.52	3	2	7	9	3	24
British Journal of Haematology	4.438	3	4	7	5	4	23
American Journal of Clinical Pathology	2.717	3	7	5	6	2	23
Journal of Experimental Medicine	14.609	5	5	3	5	4	22
Molecular Cell	13.929	3	3	4	8	4	22
Molecular and Cellular Biology	6.367	5	6		6	5	22
Journal of the American Geriatrics Society	4.46	5	5	4	5	3	22
American Journal of Obstetrics and Gynecology	3.519	3	2	6	8	3	22
JAMA-Journal of the American Medical Association	27.753	5	1	4	3	8	21
Hypertension	6.857	2	5	7	5	2	21
European Urology	6.327	1	4	3	3	10	21
Circulation	14.049	2	9	5	2	2	20

Source Title	Impact	2006	2007	2008	2009	2010	Total
Arthritis and Rheumatism	8.136	6	5	3	3	3	20
Biophysical Journal	4.764	6	3	5	4	2	20
Journal of Pharmacology and Experimental Therapeutics	4.009	4	4	6	4	2	20
American Journal of Physiology-Renal Physiology	3.916	3	6	3	4	4	20
Journal of Magnetic Resonance Imaging	2.967	5	2	5	5	3	20
Clinical Infectious Diseases	7.552	2	3	6	6	2	19
American Journal of Surgical Pathology	4.716	2	1	5	7	4	19
Journal of Hypertension	4.487	4	3	6		6	19
Fertility and Sterility	3.961	4	3	7	2	3	19
Journal of The American Academy of Dermatology	3.699	3	2	2	5	7	19
Plastic and Reconstructive Surgery	3.158		2	7	4	6	19
International Journal of Geriatric Psychiatry	2.425		4	7	5	3	19
Journal of Cutaneous Pathology	1.694		3	9	2	5	19
Neuroimage	7.168	3	4	3	3	5	18
Virology	3.204	3	8	3	4		18
AIDS Reader	0.612		9	7	2		18
Human Molecular Genetics	7.733	4	3	1	4	5	17
Journal of Molecular Biology	4.303	5	4	3	2	3	17
Journal of Clinical Microbiology	4.126	4	4	6		3	17
Clinical Orthopaedics and Related Research	2.661	1	4	3	6	3	17
Journal of Perinatal Medicine	1.513	1	2	4	5	5	17
Diagnostic Cytopathology	1.215	1	5	3	4	4	17
Nature Medicine	27.991	6		4	4	2	16
Neuron	14.674	5		2	2	7	16
Journal of The American College of Cardiology	11.624	3	2	3	4	4	16
Circulation Research	9.857	1	3	4	5	3	16
EMBO Journal	9.395	1	5	2	3	5	16
American Journal of Geriatric Psychiatry	3.842	3	4	3		6	16
American Journal of Hypertension	3.219	3	3	3	2	5	16
Brain Research	2.551	6	2	2	4	2	16
Clinics In Perinatology	1.807	6	6	2	1	1	16
Biological Psychiatry	9.489	4	3	3	2	3	15
Development	7.65	3	4	3	2	3	15
American Heart Journal	4.127	3	5		5	2	15
Magnetic Resonance In Medicine	3.852	4	3	3	2	3	15
American Journal of Physiology-Heart and Circulatory Physiology	3.747	2	4	3	3	3	15
Cell Cycle	3.693	1	1	4	3	6	15
Anesthesia and Analgesia	2.65	2	4	5	1	3	15
Current Opinion In Urology	2.244	2	1	4	3	5	15
Radiologic Clinics of North America	2.165		9	3	3		15

Figure 1. Articles or reviews by Weill authors, grouped by 5-year impact factor

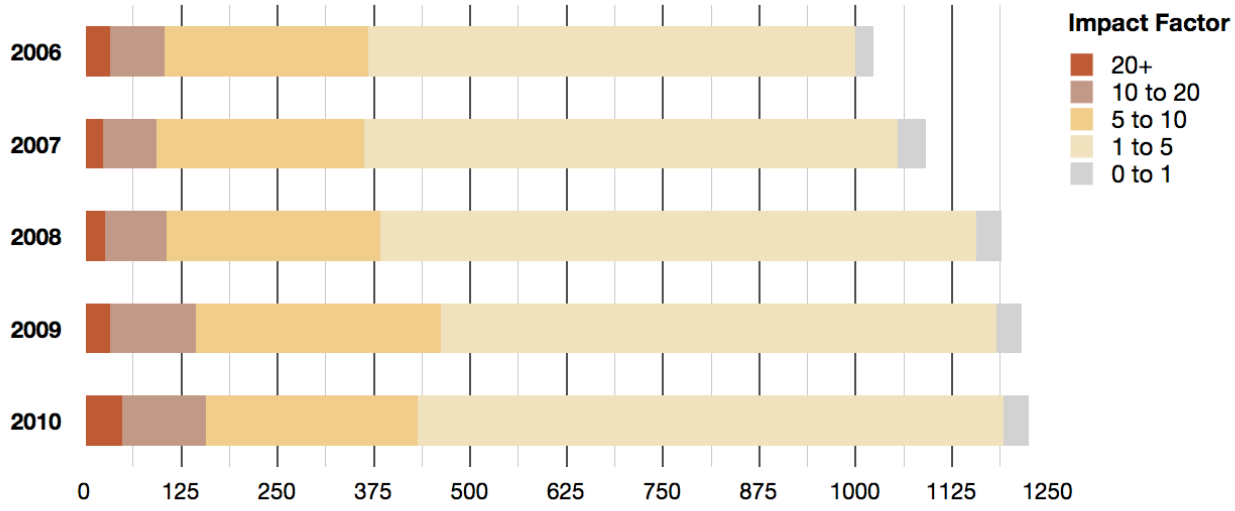

Figure 1a. Articles or reviews by Weill authors in high-impact journals, grouped by 5-year impact factor

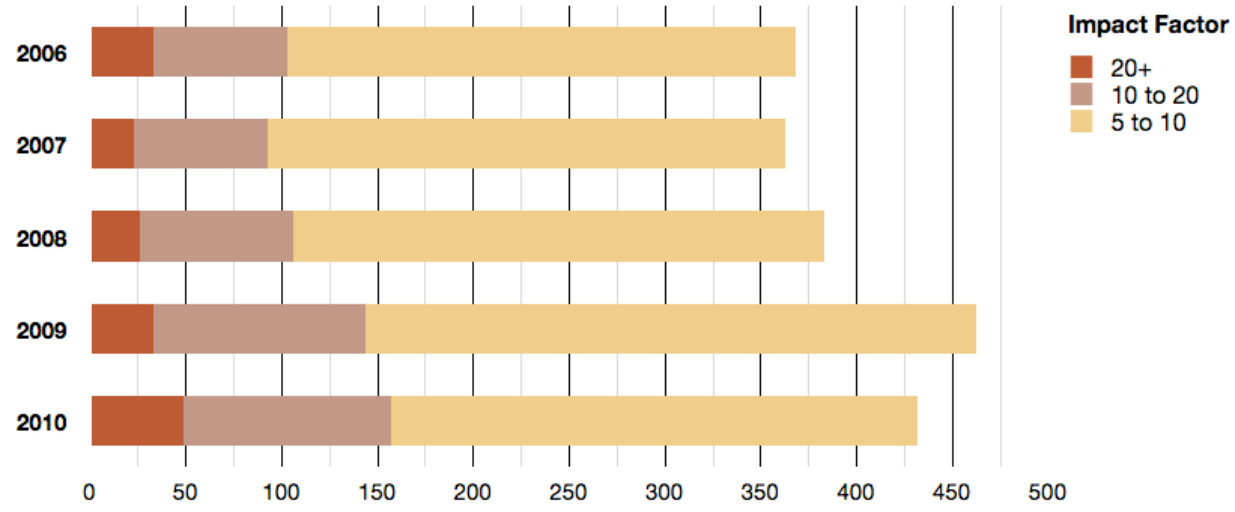

Figure 2. Subject categories of high-impact journals, weighted by publication frequency of Weill authors

This is a display of the relative frequency of publication in high-impact journals of certain disciplines.

Methods: We identified journals in which Weill authors published articles or reviews between the years 2006 and 2010 and ordered those journals by impact factor, excluding those publications with an impact factor of less than 10. We looked up the ISI subject categories assigned to each of these journals. Then, we created a quotient for each subject category, weighted by number of publications. In cases where there were multiple subject categories assigned to a journal, we divided the contribution of the subject category to this quotient by the number of categories. We declined to display one subject category, “Multidisciplinary Sciences,” because it is not an especially meaningful category, and it would have been twice as large as the next largest category.