SKIN

BRIEF ARTICLE

Publication Outcomes of Abstracts Presented at the 2020 Society for Investigative Dermatology Annual Meeting

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ABSTRACT

The Society for Investigative Dermatology (SID) was created to promote the advancement of skin biology research. The organization hosts a conference annually that allows for the dissemination of basic science knowledge to advance dermatology research to new heights. Our study investigates the publication status of research abstracts presented at SID to determine if publication rates were similar to those of other widely attended conferences in dermatology. We performed a literature search for each abstract presented at the conference in 2020 and found that only 27.6% of abstracts make it to publication. Due to various reasons outlined in this article, publication rates of SID projects are lower than many other dermatology conferences attended. Therefore, conference participants should be aware of how study designs and research topics can influence publication outcomes.

INTRODUCTION

The Society for Investigative Dermatology (SID) is an international organization designed to promote collaboration, education, and scholarly exchange to advance skin-based science, with a unique emphasis on the basic science investigation of skin biology. The organization hosts an annual conference, with over 32 countries being represented and 5,000 attendees, including clinicians, researchers and trainees gather to share novel discoveries and remain updated on new advancements in dermatology.[1] A study conducted by Beltrami *et al.* explored the publication outcomes of abstracts presented at the American Academy of Dermatology Annual Meeting (AAD) in 2015 and 2016. More than half of the abstracts presented at AAD did not ultimately achieve formal publication status.[2] Since the SID annual meeting places greater emphasis on basic and translational research, we conducted a qualitative study to investigate how its focus impact the publication fate of accepted abstracts.

MATERIALS AND METHODS

We performed a literature search of all 685 abstracts presented at the 2020 SID Annual Meeting due to the accessibility of its data. Using Google Scholar and PubMed, we searched each abstract title and authors to identify relevant publication results. The information of the abstract was compared to

the articles yielded from our search results. If the abstracts and manuscripts had similar methods, results, and discussion, they were considered "published". Abstracts were excluded if they were not included in the final program booklet. Abstracts were considered "unpublished" if no relevant publications were found. Included abstracts were stratified by type of presentation (oral versus poster), topic category, and study design, as designated by the conference guidelines and authors. The main outcome was abstract publication rates by category and study design, journal destination, and latency to publication.

RESULTS

From the 2020 meeting, 189 (27.6%) abstracts out of 685 were published with an average latency of 12.8 months (**Table 1**). The *Journal of Investigative Dermatology and Journal of American Academy of Dermatology* were the two journals that abstracts were most frequently published in with 34 and 14 abstracts, respectively. Abstracts that represented systematic reviews (50%) and case series (44%) were more likely to be published whereas meta-analysis and observational studies were least likely. Abstract sub-categories of *Carcinogenesis and Cancer Genetics* or *Single Cell Transcriptomics and Cell-Cell Interactions in the Skin* had the greatest publication rates (**Table 2**). Studies discussing pigmentation and melanoma, or pharmacology and drug development have a quicker publication time, 2 and 5 months respectively. Abstracts related to stem cell biology, innate immunity, and microbiology took the longest to publish, with an average latency between 17-20 months.

Table 1. Total Publication Outcomes, Latency to Publication and Journal Outcomes of AAD meeting abstracts for 2020

Top 5 journals of abstract publication	Journal Name	No. of published abstracts	Rate
1	*Journal of Investigative Dermatology*	34	18%
2	*Journal of the American Academy of Dermatology*	14	7%
3	*Journal of European Academy of Dermatology and Venereology*	7	4%
4	*JAMA dermatology*	6 (tie)	3%
5	*International Journal of Cosmetic Science*	6 (tie)	3%
Outcomes	**Presented**	**Published**	**Rate**
Total	685	189	27.60 %
Overall Latency to Publication (in months)			12.80 %
Percent with Publication Prior to May 2020			9.50%

Table 2. Publication outcomes organized by category and study design

Category	Presented	Poster Presentations	Oral Presentations	Published	Rate	Average latency to publication in months
Adaptive and Autoimmunity	65	53	12	11	17%	15.3
Carcinogenesis and Cancer Genetics	42	28	14	21	50%	15
Single Cell Transcriptomics and Cell-Cell Interactions in the Skin	23	12	11	13	57%	11.4
Epidermal Structure and Barrier Function	46	33	13	22	48%	13
Genetic Disease, Gene Regulation and Gene Therapy	43	29	14	17	40%	14.4
Innate Immunity, Microbiology, and Microbiome	43	26	17	19	44%	17.2
Patient Population Research	112	78	34	53	47%	15
Patient-Targeted Research	63	47	16	10	16%	12.7
Pharmacology and Drug Development	40	26	14	4	10%	5.8
Photobiology	20	12	8	2	10%	10.5
Pigmentation and Melanoma	43	37	6	6	14%	2.3
Skin of Color	21	10	11	0	0	No presented articles published
Skin, Appendages, and Stem Cell Biology	26	16	10	1	3%	20
Tissue Regeneration and Wound Healing	29	20	9	0	0	No presented articles published
Translational Studies	69	54	15	10	14%	14.2

Study design	Presented	Poster Presentations	Oral presentations	Published	Rate	
Basic science	389	264	125	99	25%	
Case report	11	9	2	3	27%	
Case Series	20	16	4	10	50%	
Case-control study	18	6	12	5	28%	
Cross-sectional study	36	22	14	13	36.00%	
Ideas, editorials, and opinions	30	30	0	8	27%	
Meta-analysis	8	5	3	1	13%	
Methods	1	1	0	0	0	
Non-randomized trial	25	15	10	11	44%	
Observational study	87	66	21	19	22%	
Randomized controlled trial	25	16	9	7	38%	
Review	9	9	0	4	44%	
Systematic review	26	23	3	10	38%	

DISCUSSION

Our findings showed a relatively low percentage (27.6%) of abstracts presented at the SID Annual Meeting ultimately reach publication. Surprisingly, 27% of basic science research was published which is lower than case series, which had a 50% publication rate. In comparison, in 2015 and 2016, AAD had 44.7 % and 43.5% of presented abstracts reach publication, respectively.[2] The publication rates in SID are also lower than the American College of Mohs surgery between 2011 to 2014 (40.04%).[3]

There are many factors that influence the fate of abstracts presented at scientific conferences. Discrepancies include scenarios where abstracts contain preliminary results that are later proven to be statistically insignificant. Changes in authorship, project direction, study sample size, incentives, resources, and abstract to publication latency also affect the ultimate outcome of an abstract presentation.[4,5] Medical trainees who graduate or move on to other positions may leave before their project reaches official publication.[2]

More than 50% for the published articles were in the *Journal of Investigative Dermatology*, which is affiliated with SID, carrying an impact factor of 6.5 and primarily publishes work pertaining to cutaneous biology and skin disease. Abstracts featured at SID were more likely to be published in the host journal and these trends seems to mirror that of other organizations. For example, AAD abstracts were more likely to be published in its affiliated journal, *Journal of*

the American Academy of Dermatology (JAAD).[2] Although the reasons are not entirely clear, this could be due to shared scope and topic interests between the conference and its associated journal and the specific aims of the researchers.

There are stark experimental differences between basic science and translational research versus clinical investigations. Each study design has its own challenges such as significant time-consumption, funding, bias, and ethical considerations. Clinical research generally produces more citations and publications than basic science research.[6] The average publication latency of meta-analyses is 16 months likely due to extensive protocols and peer-review processes.[7] Observational studies and systematic reviews also suffer from delays to publication, possibly because of the need to generate and interpret the data, and extensive critical appraisal. This mirrors the results in our study, which showed that meta-analysis and observational studies had the lowest publication rates.

Limitations in this study include subjectivity when categorizing study designs, abstract classifications, and latency to publication. Our results are also drawn from one annual meeting because of the limited availability of data at the time the study was conducted, and therefore limits generalizability.

CONCLUSION

When predicting project outcomes, there are many factors to consider including type of study design and category. Therefore, researchers should be aware of the variations in scholarly work that influence publication rates.

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