Let Me Speak! A Reviewers' Guide to Writing a Successful Meeting Abstract

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Being able to summarize properly your work is not an easy task. But learning the skill of writing a good abstract is very important, as it can open many doors, including the possibility to be selected as a speaker at conferences. As meeting abstract reviewers, here we are writing to give you insights into the abstract review process and insiders' tips to help increase your chances of landing on that podium.

Learning how to write a great abstract is essential to one's career. The ability to concisely present a biological problem, including the motivation behind the research, and describe novel results with a captivating conclusion, is a critical skill with broad implications. It is a key component of applying for funding or writing a manuscript, and it will also help you land a coveted oral presentation at a conference. Being selected for an oral communication at a meeting will increase your visibility and represents an excellent opportunity for networking.

As abstract reviewers for the International Society for Stem Cell Research (ISSCR), we are writing to take you behind the scenes and let you know what reviewers look for in an abstract, so you can increase your chances of figuring in the speakers list.

Preparing Early
Whether you've attended 10 conferences a year or are gearing up for your first ever conference, surely you fancy the idea of being invited up to the podium to have the entire room listen as you describe your work. Our favorite conference for this is the ISSCR Annual Meeting, and it's just about time to start preparing your abstract, as the meeting will be held in Los Angeles this upcoming June. If you study stem cells, this is *the* conference to attend.

The best way to make your ISSCR meeting, or any meeting, successful starts long before the meeting itself—it begins with writing a strong abstract summarizing your work. The quality of your abstract may translate into you being selected for an oral presentation. As a trainee, this is the pinnacle achievement for a conference, as it recognizes the value and rigor of your science and provides you with invaluable visibility and exposure to your colleagues, reviewers, and future employers. In addition, a quality abstract can lead to increased traffic to your poster, meaningful conversations about your science, and even potentially conference awards.

When it comes to being selected for an oral presentation, we know it seems nearly impossible. Most of us have thought at least once in our scientific careers that the "oral presentation from selected abstract" slots on a program are pre-allocated, going exclusively to "the big PIs." *This is not true*. In Melbourne last year, 73% of the 90 oral presenters were either early career investigators (group leaders within 7 years of independence) or trainees (postdocs or graduate/medical students).

In 2019, the ISSCR Annual Meeting will have 135 abstract-selected speaking slots available. Still, there simply aren't enough speaker slots available for all the high-quality science being presented at the ISSCR meeting. The key distinguishing features of abstracts chosen for oral presentations are ultimately the novelty of the work, its impact on the field, and your ability to clearly convey those concepts. In an effort to help those of you who are preparing an abstract for this year's ISSCR meeting or any other scientific conference, we would like to share what we have learned over the years as abstract writers, reviewers, and PIs who are now training graduate students and postdocs on what makes a compelling abstract.

The Review Process
When crafting an abstract it is important to think about the audience, including those who will be reviewing the abstract, and others reading it in the conference abstract book. Abstract reviewers and meeting attendees often have less than one page upon which to judge your work and decide whether they would like to hear more. In this precious space you need to grab their attention, explain the problem you are studying, what is unknown, how you are addressing this knowledge gap, your results, and your conclusions. Writing an abstract is a wonderful exercise for distilling down the key questions and conclusions of your research project.

First a note about how the process of abstract evaluation takes place. After the period for abstract submission is closed, your abstract is pooled with others based on broad categories that you declare at the time of submission. You want to make sure, when submitting the abstract, that you accurately choose the broad category of your story, as this will dictate the area of expertise of your abstract

reviewers. Abstracts are typically disseminated to at least four different reviewers, with each reviewer evaluating approximately 30–35 abstracts. Reviewers then evaluate the abstracts and assign them a priority score. The top abstracts in each session are considered as a whole when abstract-selected speakers are chosen so that the session will have good coverage of the scientific topic.

What does all this mean for you? You have the full attention of your reviewers… for about 5 minutes. You need to make the most of that time.

Writing a Winning Abstract
Chose the Right Name for Your Story
It may sound obvious, but you need to catch the attention of the reader immediately. The title is of the utmost importance and should be both appealing and accurate. Consider how you decide whether to continue to read a book, a paper or… an abstract; it's often based on the impression left by the title. You'll want to get straight to the point, keep it short and simple, and make your research clear simply by your title. A good title will convey the main message of your work and it is important that you summarize its most interesting or novel aspects in order to attract the reader's attention.

Identify Your Problem
After you capture the interest of the reader, the next things he/she will look for are novelty and significance. The best way to highlight the novelty is to put it in the context of what is already known, identifying and delivering clearly the gap of knowledge that your study is filling. It must be clear why your work is important and why people will want to hear more. As scientists, we are all led by our curiosity, and you have the best odds of being selected to speak by making it clear how your work is breaking previously established paradigms or providing new elegant insight into old problems.

What Have You Done, and Why Should I Care?
Once you have found the focus of your story, it should become clear which data should go in the abstract. First, it's highly unlikely that you will be scooped by simply submitting an abstract, so provide as much information as possible. Given the space constraints, it is impossible to include all the details that will allow for the exact reproduction of your findings. Further, it is not likely that a competing group could attempt to reproduce exactly what you have; it took you a lot of hard work, and you can be sure it would take them just as long. We encourage you to avoid being vague, as this instead gives the impression that you lack data. What problem or problems are you studying? What model system are you using? What endpoint or endpoints are your metrics of interest? And finally, what exactly did you observe? All this information needs to be clearly conveyed. A reviewer needs to be able to establish that you have made solid experimental observations that would likely hold up to peer review.

Keep in mind that the ultimate goal of the reviewer is to select abstracts for oral presentation, and there should be enough novelty and material to speak about—a lack of details goes in the opposite direction, and very likely will not impress anyone. In addition, while the reviewer is likely an expert in your field, they are not omniscient, and therefore you need to guide them with your narrative. Omitting crucial experimental details will result in lack of clarity that will ultimately undermine the overall score of your abstract. Unlike a manuscript review, where careful attention is given to citations and background information, an abstract reviewer is not going to have the time to perform background research on the pathways, genes, or diseases relevant to your experimentation. Make it clear, *here*, now. A good practice is also to describe, even briefly, the controls used, so that the reader understands the metrics used for comparisons and can gauge the significance of the findings and build confidence in your results and your scientific rigor.

Careful balance is required, however. While you need to include your robust results, the abstract should not overwhelm the reader with too much data. This will waste precious space you can be using to establish the innovation and significance of your work. Get to the point of your findings. Defining clearly what your story is about is not only helpful for the reader, but also helps you determine which data to include, as it will fit directly into your narrative.

Wrap It Up and Put a Bow on It
Your closing statement is just as important as your title. Repeat your main message and reiterate how this has significantly moved the field forward. Your last sentence should be definitive and not end with open-ended interpretations.

Formatting Matters!
Now that we have covered the basic aspects of the structure of an abstract, it is important to highlight that the format is also an important ingredient. No one likes to read an abstract filled with typos, so make sure you ask some peers to proof-read your text. For non-native English speakers, an external eye can help spot spelling and grammar mistakes and give advice on overall clarity. Ask people from other labs, particularly those not working in your same field, to read your abstract and provide feedback regarding the quality of the message. Can they repeat back to you your overall conclusions? If they cannot, your point is not coming across clearly.

Don't Overstate Your Work
Reviewers are turned off by the use of adjectives that overstate or exaggerate, such as "tremendous," "exciting," etc. These words can annoy a reviewer and reflect negatively on your abstract.

It is also important to note that all scientific conferences, including the ISSCR Annual Meeting, have submission standards and rules that must be followed.

Concluding Thoughts

We hope these tips will guide you to prepare the best abstract you have ever written. While there are not nearly enough spots for all the good abstracts submitted, don't forget that abstract review scores are considered when selecting recognition such as trainee travel, merit, and poster awards (and it looks great on a CV, too!).

Finally, it's important to remember that a well-written abstract will draw people to your poster. Each one of us scans the abstract book ahead of the meeting, "cherry-picking" the most interesting abstracts to visit. Your abstract becomes an incredibly important advertisement of your work and can generate excitement that encourages visitors eager to talk to you, including future employers.

Abstract submission for the 2019 ISSCR Annual Meeting officially opens on December 5, so the clock for submissions is already ticking!

So, write in advance, good luck, and see you in LA.