How to get published in high-impact journals: Big research and better writing

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Getting your work published is about more than good science, it’s about good communication too, say Macmillan and Nature editors at the London Naturejobs Career Expo in September 2014.

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Getting your research into an influential journal is certain to give a healthy boost to both academic standing and future career prospects (scientific or otherwise). Accordingly, it is a competitive business: many articles are put forward but few accepted. In fact, of the almost 11,000 articles submitted to Nature last year only 856 (7.8%) were published. What does it take?

“Data should be at the heart of everything you do,” says Peter Gorsuch, an editor at Macmillan Publishers Ltd., Nature’s parent company. Indeed, without excellent data, it is virtually impossible to publish in high-impact journals — if at all. Still, even with high-quality data, you can jeopardise your chances of publication if you don’t have a high-quality paper.

At the Naturejobs Expo on 19 September in London, Macmillan publishers hosted two workshops on how to publish in high impact journals. Gorsuch was joined by Sadaf Shadan, an editor at Nature and they offered insights on the dos and don’ts of scientific publishing. The second workshop was run by Nicky Dean, a senior editor and team manager at Nature Communications. He gave some insights into what makes research worthy of a high impact journal.

Here are some of their combined tips.

Imagine your research as telling a story. Start by asking a big question, and form a logical argument. “High-impact papers need strong evidence and noteworthy conclusions,” says Shadan. Look to fill as many gaps in your story as possible; great research builds up
a whole picture of a system. A paper should tell a “clear, compelling story” and be written with a chosen scientific publication in mind, says Dean. For example, is your research better suited to the Journal of Virology or Infectious Diseases?

**Know your audience.** Nobody is obliged to read anything you write, and if you do not pitch your paper appropriately, you can reduce its potential impact.

The readership for a scientific paper is specialised, but you should never assume too much knowledge on readers’ parts. This is particularly important in high-impact journals, as one of the acceptance criteria is research with broad relevance. So, while your readers will likely be scientists, they will not all be experts in your field.

**Be short, clean and clear.** Don’t underestimate the importance of a good title and abstract, says Dean. These short blocks of text — often the final consideration when constructing a paper — will receive far more views than the paper itself. They should be used as a hook, to pull readers (and editors) in. This means not using superfluous, specialised jargon, especially in the headline and abstract. For example, ‘*Sylvilagus nuttallii*: a semi-arboreal lagomorph’ could be better put as ‘Tree climbing behaviour in Mountain Cottontail; *Sylvilagus nuttallii*’, says Shadan.

After the headline, the abstract is the second most important section. It should briefly introduce the topic, state the problem that the paper is trying to address, summarise the main findings and then give a perspective on possible benefits and utilities of these findings. Demonstrate the wider context of your research by asking questions like “What are the conclusions of your paper really telling us, and who does that impact on? How relevant is that beyond your immediate community?”

Pay attention to the structure and language of the papers you read. Papers from fields other than yours that you enjoy and find accessible should provide good inspiration for your own.

Editing services can assist you with style and other issues. But do not undersell your research. “If you find something big, tell us!” says Shadan.

**Make good use of figures.** Figures must visually represent your findings: they must be in a logical order and correspond to your story. In the age of ‘big data’, figures can become overwhelming, but you can cut them to size. “Consider using the subset of your data that best describes your point,” says Gorsuch, although you must inform readers of any such manipulation.

One of the most fundamental principles of scientific research is the ability to build upon and find inspiration in the ideas of your peers. Says Gorsuch, “The most important thing in scientific publishing is to reach the people who need to know about your research. Publishing in top journals is one of the best ways of achieving that.”

Samuel Brod caught up with Dean at the end of the workshop and asked him if he thought researchers were aware of the importance of good writing and communication skills when submitting to his journal. The reply was frank.
“You can tell a lot of them don’t,” he said. “There are scientists who get it, though. They know how to put all it together and their papers do well. People say ‘Oh you always publish papers by so and so’. Well — they write really good papers, they’re well thought out and carefully constructed… They bring out what’s important, and that increases the interest and the impact of the paper.”

As an immunology graduate student, Brod knows it’s easy, after months or years of grueling research, to approach the writing of a paper with a ‘Look at what I’ve done’ mindset — when if you truly want to maximise the value of your research, it seems that you should instead focus on saying — ‘Look why this matters’.