10 SIMPLE STEPS TO CREATE
AN AWESOME
SCIENTIFIC POSTER
INTRODUCTION
An awesome scientific poster is a work of art. It successfully combines two rather unrelated fields: science and graphic design. Not only should everything on a poster be accurate and correct, it should also be easy to understand and pleasing to look at.

Unfortunately, experience learns us that most scientific posters fail on the latter two criteria. It is common to see posters crammed with text and data, often illegibly small. Figures lack legends or labels, and are copied straight from an article. A clear introduction or conclusion is missing. All of this forces viewers to quickly lose their attention and move away.

In this short manual, we offer some very simple tips and advice to craft an awesome scientific poster yourself. Having a clear story and a simple layout will help you to successfully spread your message to a broad audience.

Good luck!
#1
TELL A STORY
Don’t use your computer to start making your poster, but start on a blank piece of paper instead. Before opening your favorite software and jumping into the lay-out, take enough time to think about the story you want to tell your audience.

Define a **single key message** you want your audience to remember. If someone would ask them: “*What did you learn today?*”, what would you want them to say? Remember, your message should be relevant not only to you, but also to your audience!

Around this key message, add layers of context as if you were writing an abstract: an introductory sentence, a problem you want to solve, and your methodology to do so. Add your main results, and the conclusion you can draw from them. In what way did you solve the initial problem? This is the story your poster should tell.

Nothing more, nothing less.
#2 PROVIDE CONTEXT
When crafting your story, don't forget to **add context**. Why are you doing this research? What is the scientific and societal relevance? What is the current situation, and in which ways does it differ from the ideal situation? This is the need, the problem (or one of the problems) you are trying to solve with your research.

Without the relevant context, your audience will not know why your research is important, and they will not be motivated to learn about your results and conclusions.
#3

DRAW MEANINGFUL CONCLUSIONS
End your story with a meaningful conclusion. Refer back to the context: in what way did you solve the initial problem? Which steps did you take towards a solution? Did you raise additional questions, which should be tackled in further research?

Don’t forget to add a message to your conclusions, rather than sticking to mere numbers. A 10% increase of something is nice, but is it good or bad? Is it something you expected, or is it unusually large or small?
#4
REMOVE
THE UNNECESSARY
People never have enough time. At a conference poster session with tens, often hundreds of posters, they are not willing to spend fifteen minutes reading your poster from A to Z. Therefore, remove everything which is not relevant for the story you want to tell. **Keep the focus on your key message.** Use short, compact sentences.

Sure, you have done a massive amount of great work, but if you try to put all of it on your poster, the amount of information will be so huge that nobody will bother to read it. They will lose their attention and move on to the next poster.

**PRO TIP** A great way to save some space on your poster is by removing your references and putting them on a separate handout page. If people are interested enough to look up your references, they don't have to write them down or take a picture.
#5
CHOOSE A DESCRIPTIVE TITLE
The title is your first and best way to get your audience's attention. In just a few seconds, they should know what your story is about. Make sure to avoid difficult words or abbreviations, keep it clear, concise and simple.

Don't be afraid to choose a title that gives away your key message. If the title is all your viewers read, make sure it will be one they will remember.
#6
MAKE YOUR LAYOUT MATCH YOUR STORY
Now it is time to open your favourite software and create a layout. The simplest design is often the most effective, for example: white rectangular blocks on a lightly colored background.

Make sure not to put blocks where they fit, but keep the flow of your story in mind. Create a logical structure starting with your introduction and working your way towards your conclusions.

**PRO TIP** Finding the right colors can be one of the hardest tasks when designing your poster. Several websites and tools are available to help you in finding a great color scheme.

One of my favourite examples is coolors.co.
#7 OPTIMIZE YOUR VISUALS
Pictures say more than thousand words... and therefore they are invaluable on a great poster - just like in a journal article. But don't be tempted to simply copy figures from an article onto your poster. They are completely different media, with completely different requirements.

Take your time to **craft your poster figures from scratch**. Pay attention to readability and simplicity. Use a large enough font, remove unnecessary details, don't forget your legend. Again, make sure that every figure supports your story and helps to convey your key message.

**PRO TIP** Write meaningful captions. Rather than a description of what’s on the figure, provide an interpretation. In this way, readers can follow the story simply by moving from figure to figure, caption to caption.
#8

MAKE IT EASY FOR THE READER

The quick fox jumps over the lazy dog.
Pack my box with five dozen liquor jugs.
How quickly daft jumping zebras vex.
Your audience is lazy. It’s your job to ensure they don’t have a hard time reading the text on your poster. To achieve this, the key to success lies in the details, most importantly the **font size** and the **linewidth** (the distance between two consecutive lines).

Other important factors to optimize: the line length, which should ideally be around 50 characters (that’s twice the alphabet) and the whitespace around your titles and paragraphs. As a rule of thumb, if you print your poster on an A4 sheet, and you hold it at arm’s length, it should be easy and comfortable to read everything – yes, that includes axis labels, legends and references!

**PRO TIP** Research has shown that – for printed media such as posters – serif fonts (e.g. *Times New Roman, Cambria* or *Garamond*) are easier to read than sans-serif fonts (e.g. *Arial, Calibri* or *Verdana*). The various small lines at the end of the strokes help our brain to quickly identify the right letters. Use this to your advantage!
#9

PRACTICE YOUR PRESENTATION
Presenting a poster is not very different from presenting a speech. However, your time is usually much more limited, since people want to visit several tens of posters in a single session. Also, you receive a lot more questions from your audience.

Imagine that someone asks you the following question: “I don’t have time to read everything on your poster, but can you tell me in 30 seconds what it’s about?”. There’s even a good chance you will actually get this question!

As always, keep in mind who you are talking to. Is it a specialist in your field, or maybe in a related field, or is it someone with a completely different background? How would you explain your poster to your mother?

**PRO TIP** For people who are very interested in your research, provide some handouts: a handy copy of your poster on an A4-sized sheet of paper.

On the back, list your contact details and relevant references. Not only does this help people remember your name and your work, but it also saves some space on your poster itself!
Prepare for questions
When people come to your poster, they will have questions for you. Of course, you can’t always predict what people will ask, and you cannot know everything. But you can be prepared.

Take some time to come up with questions your audience might have after seeing your poster. Ask some colleagues to take a look at your poster and come up with questions. Show your poster to your friends, family or partner and let them ask questions. Think about further research, the details of your methodology, alternative approaches to achieve the same thing,...

PRO TIP
Together with your handouts, bring supplementary material! Remember step number 4, where you removed everything which was not strictly necessary? This is the time to bring all your extra figures and data with you, just to be sure. And if you are really feeling confident, why don’t you bring a few copies of your latest article?