Do's and Don'ts of Poster Presentation

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This guide offers advice on preparing a good scientific poster. As with all communication, which is an art form, there is no single recipe for success. There are many alternative, creative ways to display and convey scientific information pictorially. Occasionally, breaking with tradition can pay off, but not always. It’s generally best to leave experimentation to the laboratory, and stick with tried-and-true methods for poster presentations. Remember that when it comes to posters, style, format, color, readability, attractiveness and showmanship all count.

1. **Don’t** write an overlong title. Save it for your abstract. Titles that use excess jargon are a bore. Titles with colons in them are a bore. Titles that are too cute are even more of a bore.

   **Do** keep your title short, snappy and on target. The title needs to highlight your subject matter, but need not state all your conclusions. Some good titles simply ask questions. Others answer them.

2. **Don’t** make the title typesize too large or too small.

   **Do** make your title large enough to be read easily from a considerable distance (25-50 ft.), without exceeding the width of your poster area. It should never occupy more than two lines. If things don’t fit, shorten the title—don’t reduce the typesize! Format your title using title case, which means initial capitals followed by lowercase letters.

3. **Don’t** leave people wondering about who did this work.

   **Do** put the names of all the authors and institutional affiliations just below (or next to) your title. It’s a nice touch to supply first names, rather than initials. Don’t use the same large type size as you did for the title: use something smaller and more discreet. This is not the cult of personality.

4. **Don’t** use too small a typesize for your poster. This is the single most common error!! Never, ever, use 10 or 12-point type. Don’t use it in your text. Don’t use it for captions. Don’t use it for figure legends, annotations, footnotes or subscripts. Don’t use it anywhere. Don’t ever use small type on a poster! Remember, no one ever complained that someone’s poster was too easy to read.

   **Do** use a typesize that can be read easily at a distance of ~4 feet or better. You do want a large crowd to develop around your poster, don’t you? Think of 14-pt. type as being suitable only for the “fine print” and work your way up (never down) from there. 20-pt. type is about right for text (18pt., if necessary). Not enough space to fit all your text? Shorten your text!

5. **Don’t** pick a font that’s a pain to read. Please, don’t get too creative in your typeface selections: no one wants to struggle through a poster in Gothic or Broadway or Tekton or anything garish. Less obvious is the fact that sans-serif fonts, Helvetica and Arial being the most common offenders, are more difficult to read, and certain letters are ambiguous (l = lower case ‘l’ and I = upper case ‘I’). Serifs help guide the eye along the line, and have been shown in numerous studies to improve both readability and comprehension. Equally hard to read are most monospaced fonts, such as Courier. Generally speaking, it’s better to leave Helvetica to Cell Press, reserving its use in posters for short text items such as titles and graph labels, and reserve monospaced fonts for use in nucleotide sequence alignments.

   **Do** use a high-quality laser or inkjet printer to print your poster: no dot matrix printers, no typewriters, no handwriting. Select a highly legible font with serifs and a large “x-height.” The x-height of a typeface is a typographer’s term for the relative height of the lowercase ‘x’ compared with an uppercase letter, such as ‘A’, or a lowercase letter with ascenders, such as ‘b’. A large x-height makes for easy reading from a distance. Good ol’ Times Roman (A a B b C c D d E e G g P p Q q X x Y y Z z) and its look-alike clones such as Times New Roman represent the standard choice. But if you seek a different look, consider Baskerville (A a B b C c D d E e G g P p Q q X x Y y Z z), Century Schoolbook (A a B b C c D d E e G g P p Q q X x Y y Z z), Palatino (A a B b C c D d E e G g P p Q q X x Y y Z z), or anything else with proven legibility. Also,
consider adjusting the kerning (the inter-letter spacing) for improved readability. This is particularly helpful when using large font sizes.

6. **Don’t** vary the typesizes and/or typefaces excessively throughout the poster. For example, don’t use something different for every bit of text and graphics.

   **Do** design your poster as if you were designing the layout for a magazine or newspaper. Select fonts and sizes that work together well. Strive for consistency, uniformity and a clean, readable look.

7. **Don’t** make your reader jump all over the poster area to follow your presentation. Don’t segregate your text, figures, and legends in separate areas.

   **Do** lay out the poster segments in a logical order, so that reading proceeds in some kind of linear fashion from one segment to the next, moving sequentially in a raster pattern. The best way to set up this pattern is columnar format, so the reader proceeds vertically first, from top to bottom, then left to right. This has the advantage that several people can read your poster at the same time, walking through it from left to right, without having to exchange places. Consider numbering your individual poster pieces (1,2,3, ...) so that the reading sequence is obvious to all. And always make sure that all figure legends are located immediately adjacent to the relevant figures.

8. **Don’t** use gratuitous colors. Colors attract attention, but can also detract from your message when misused. Fluorescent (neon) color borders just don’t cut it for posters. Neither do excessive variations in color (the ‘rainbow look’). Forget paisley, tie-dye, stripes, polka dots, and batique. In graphics, use color with deliberation.

   **Do** use colors in your poster, but in a way that helps to convey additional meaning. For color borders, select something that draws attention but doesn’t overwhelm. For color artwork, make sure that the colors actually mean something, and serve to make useful distinctions. If pseudocoloring is necessary, give thought to the color scale being used, making sure that it is tasteful, sensible, and above all, intuitive. Also, be mindful of color contrast when choosing colors: never place isoluminous colors in close proximity (dark red on navy blue, chartreuse on light grey, etc.), and remember that a lot of people out there happen to be red/green colorblind. Please remember this advice when you create color slides and transparencies, as well!

9. **Don’t** write your poster as one long, meandering thread.

   **Do** break your poster up into sections, much like a scientific article. Label each section with titles. Always start with an abstract, and write it to be easily read and digested, in contrast to the abstracts found in some scientific journals. You should not attempt to include everything possible in 150 words or less. Make sure that your abstract contains a clear statement of your conclusions. Other sections should describe the Strategy, Methods and Results (although you need not call these sections by those names). Display all your graphs, pictures, photos, illustrations, etc. in context. Write clear, short legends for every figure. Follow up with a Conclusions section. You may wish to add an “Executive Summary” at the end: many successful posters provide a bulleted list of conclusions and/or questions answered/raised.

10. **Don’t** ever expect anyone to spend more than 3-5 minutes at your poster. If you can’t convey your message clearly in less time than this, chances are you haven’t done the job properly.

   **Do** get right to the heart of the matter, and remember the all-important “KISS Principle”: Keep It Simple, Stupid! In clear, brief, jargon-free terms, your poster must explain (1) the scientific problem in mind (what’s the question?), (2) its significance (why should we care?), (3) how your particular experiment addresses the problem (what’s your strategy?), (4) the experiments performed (what did you actually do?), (5) the results obtained (what did you actually find?), (6) the conclusions (what do you think it all means?), and, optionally, (7) caveats (any reservations?) and/or (8) future prospects (where do you go from here?).

11. **Don’t** write your poster just as if it were a scientific paper. It’s not. Don’t waste lots of precious space on messy experimental details (Materials & Methods should be abbreviated) or on irrelevant minutia. Don’t display every gel, every sequence, every genotype. Don’t ever supply long Tables: no one has the time or inclination to wade through these. And don’t ever lift long sections of text directly from some manuscript and use these as a part of your poster. A poster is not a worked-over manuscript.
Do recall that a poster should be telegraphic in style, and very accessible. Avoid jargon. Eschew obfuscation. Write plainly, simply, briefly—never cryptically. A little informality can help, but don’t get too cute. Stress experimental strategy, key results, and conclusions. Don’t get bogged down in little stuff. Convey the Big Picture.

12. Don’t leave prospective readers hanging, or assume they’re all experts. They’re not, especially at a broad meeting like Cell Biology, where people from different fields will be viewing your poster.

Do consider adding a helpful tutorial section to your poster. For example, consider one or more of these additions to the ‘standard fare’: (1) a brief, possibly annotated bibliography, (2) a short account describing some special apparatus or technique, (3) a synopsis of the historical background of a particular scientific problem, (4) a pictorial glossary describing some jargon terms (e.g., a definition of “synthetic lethality” with an illustration of alternative ways it can develop), (5) a website for supplementary material, (6) photographs of your setup, or (7) anything else that would help teach your readers what they need to know to understand and appreciate your work. Use graphics! Many of the items above are what an editor would call a ‘sidebar’ to the main story. Sidebars really help to communicate the message. Remember that you are the single best advocate of your own work.

13. Don’t leave out the acknowledgments.

Do remember that it never hurts to give credit where it’s due. Write up a short acknowledgment section, including your sources of financial support and everyone who helped you to get the work done. No one was ever accused of being too generous here.

14. Don’t leave out the references.

Do provide routes into the literature and supply a context for your work. Poster references need not be as extensive as those in papers. If your poster work, or work closely related to it, has already been published, display the citation(s). Footnotes are permissible but not preferable, so if they’re necessary, keep them brief. People hate having to jump around while reading posters. A website for more information is useful.

15. Don’t leave everything until the last minute! Avoid resorting to hand-written text (no felt-tipped pens!) or using whiteout. Don’t hold everything together with tape. Be professional.

Do start putting your poster together early. Get the title, acknowledgments, bibliography and other standard items out of the way first, so you aren’t stuck at the last minute with these particular details. Experiment with layout, type fonts, sizes and colors early. Buy your posterboard, pushpins, etc., early. Pre-cut posterboard pieces. Make any graphics that you know in advance are destined for your poster early. Buy a can of spray mount (artist’s adhesive) so you can dry mount all the poster segments. The best kind to get is the type that allows you to re-position the artwork without damaging it.

16. Don’t stand directly in front of your poster at the session, or get too close to it. Don’t become so engrossed in conversation with any single individual that you (or they) accidentally prevent others from viewing your poster.

Do try to stay close by, but off to the side just a bit, so that passers-by can see things, and so that you don’t block the vision of people already gathered ‘round.

17. Don’t be an eager beaver and badger the nice people who come to read your poster.

Do give them some space. Allow them to drink it all in. If they engage you with a question, that is your opening to offer to take them through the poster or discuss matters of mutual scientific interest. Conversely, don’t ignore people who look interested: you can have a beer with your buddies later.

18. Don’t pull a disappearing act.

Do stick around. It’s your poster, your work! Be there for the full scheduled presentation time. This is especially important at the ASCB meeting where there’s so much going on that interested viewers may be ducking out of other things just to catch the end of your poster presentation.
19. **Don’t** forget ancillary materials.

**Do** come prepared to your poster, armed with reprints of any of your own relevant papers that you might have, plus extra copies of any material you may wish to share. Have ready some business cards if you have them, or prepare in advance slips of paper with your coordinates. Bring a pad of paper with a hard back for writing and some pens. Posters are a terrific way to get scientific suggestions and meet like-minded individuals! Don’t forget to bring plenty of push-pins.

20. **Don’t** hesitate to provide supporting materials, if these can help. But don’t over-do it.

**Do** consider using some kind of attention-getting gimmick, but beware that it doesn’t backfire! A video set-up can be ordered through the ASCB, or you can supply your own laptop computer. Some interesting posters provide physical models or various kinds of three-dimensional display. Still others display actual data traces, or computer-based simulations, or something else that makes them stand out from the crowd. But if you do this, be sure your ‘hook’ is legitimate, and that it doesn’t detract from the science, or trivialize it.

21. **Don’t** make your poster up on just one or two large boards. These are a clumsy nuisance to lug around. They put large strains on poster pins and often fall down. They frequently don’t fit well into the poster space provided. They don’t lend themselves well to re-arrangement, alignment or last-minute modifications.

**Do** make up your poster in a large number of separate sections, all of comparable size. The handiest method is to mount each standard-sized piece of paper individually on a colored board of its own, of slightly larger dimensions, about 9.5" x 12". This frames each poster segment with a nice border and makes for a versatile poster that can be put up anywhere, yet knocks down easily to fit into a briefcase or backpack for transport.

Based on an article by the author: Biophysical Journal 71: 3527-3529 (1996)