Best titles are short conclusions, not long introductions.

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Avoid long addressess—no postal codes, no zip codes.

Your work is a "study" and explores a "relationship" to look for an "effect". Treat that as a given and say what is important.

Don't try to be snarky, cheeky or witty—most attempts do not succeed. Don't trigger the jokers, cynics, cranks and curmudgeons.

Don't say everything you know—make room for empty space. Your most valuable resource is the reader's time.

Balance visual weight and size the logos equally. If acknowledging institutional support, place it next to the logo.

Use vector-based logos, not low-resolution bitmaps. Do not change logos' aspect ratio or crowd it with other elements—both are likely against its branding style.

Regions of unbalanced negative space are good candidates for annotations, credits, quotes, and other garnish that adds value to the poster. Don't overdo it—most quotes rehash old tropes. If you must, find something that is passionate and slightly mysterious (http://mkweb.bcgsc.ca/quotes).

CANADA'S MICHAEL SMITH GENOME SCIENCES CENTRE
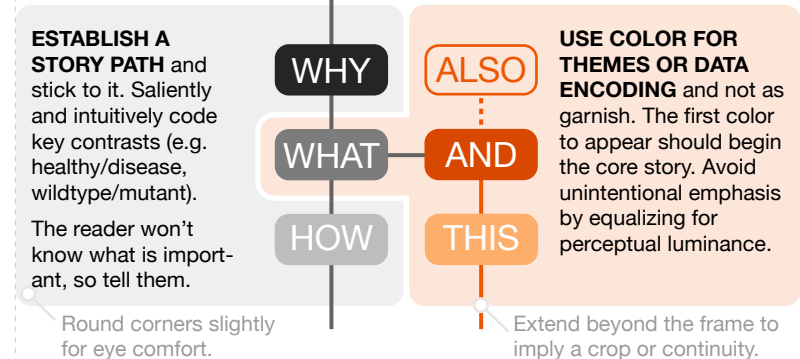
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POSTER CHILD OF SCIENCE

A poster is your first opportunity to organize and communicate your reasearch to members outside of your lab. It will help you to practise telling and "drawing" your science story and its design should be based on its concepts, themes and transitions.

Most posters are bad not because they are ugly (they are) but because they fail to present concisely what was done and, more importantly, why it was done. Most posters have too much on them. Less is more: get to the point, then stop.

Map salience to pertinence. When used in moderation, colors like orange or magenta say "look here". You cannot look everywhere.

ESTABLISH A STORY PATH and stick to it. Saliently and intuitively code key contrasts (e.g. healthy/disease, wildtype/mutant).

The reader won't know what is important, so tell them.

WHY
WHAT
HOW

ALSO
AND
THIS

USE COLOR FOR THEMES OR DATA ENCODING and not as garnish. The first color to appear should begin the core story. Avoid unintentional emphasis by equalizing for perceptual luminance.

Round corners slightly for eye comfort.

Extend beyond the frame to imply a crop or continuity.

Good explanations are ones conveniently placed. Embed simple diagrams next to relevant text. Some graphics don't need a legend—make room for explanations within. Callout lines should be rectilinear or at 45° if the graphic already has such elements.

ALL SCIENCE DESERVES EXCELLENT EXPLANATIONS

Explain quickly and clearly. Motivate why the work was done—what is the cost of not doing it?

The poster is your prop. In most settings, you will be there to present it. Match its content to the story you will tell.

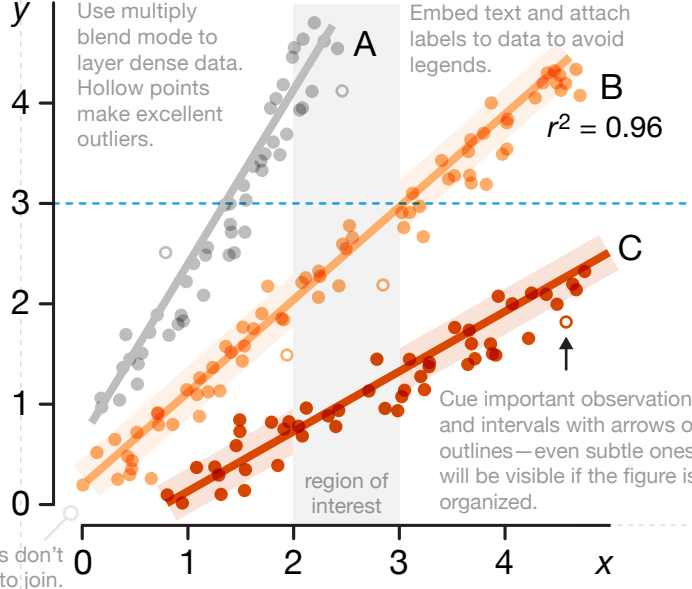### ONLY YOU CAN STOP POSTER DUMPSTER FIRES

Clip art, pie charts, bullet points, boxes around text, background fills and gradients. Only you can stop it.

Maintain good Gestalt—similar shapes and colors will form groups. Use them to encode real-world relationships and be on the lookout for unintended accidental groupings.

Colored text may help emphasize a theme but use it sparingly.

1
Use figure titles to explain trends, not merely to specify the axes.

Establish subordinate content with italics.

Use multiply blend mode to layer dense data. Hollow points make excellent outliers.

Embed text and attach labels to data to avoid legends.

A

B

$r^2 = 0.96$

C

Cue important observations and intervals with arrows or outlines—even subtle ones will be visible if the figure is organized.

region of interest

Axes don't need to join.

▲ Don't tell the reader what is obvious: "a linear fit to a scatter plot" is redundant. Don't tell me what I'm seeing—interpret the figure instead. Italicize variables in fit diagnostics and use shaded bands for confidence intervals. Highlight regions of interests with a solid color (or grey), not outlines.

Allow content to establish layout proportions and do not emphasize gutters with lines. One or two such dividers can be effective, but too many will turn the poster into a jail.

2
Share axes or align panels to clarify variables or emphasize changing scale.

Reserve small text for tangents and detail beyond the first explanation.

Establish continuity using figures that share an axis. Thresholds that span across panels (dashed lines, not dotted) lead the eye naturally to help tell the data story.

Use grids sparingly. Do not divide the plot more finely than precision allows.

Use grey for baseline, control or reference conditions. Dark grey is easier on the eyes than pure black. Avoid dark bar outlines.

A   B   C   D

Align similar labels or categories.

▲ Categorical variables in bar charts do not need an explicit axis. Specify sample sizes and what error bars represent (e.g. standard error of mean, $n = 5$). Report P-values with effect sizes or confidence intervals. A statistically significant observation isn't necessarily of biological interest.

Alignment of similar quantities subtly suggests where to look next.

3
Reveal qualitative trends in small multiples with order, cutoffs and cues.

Use a lead to announce an observation or insightful comment.

BOLD CAPS FOR PANEL SUBTITLES

Express trends without words.

WHY
WHAT   AND
HOW   THIS
WHO   TOO

Reuse forms.

Distribute based on points of interest.

Draw attention to data subsets.

Axis breaks tell a story.

Use Brewer palettes, even for greys.

A   B   C

▲ Look for opportunities to include key observations (●) and explanations in the figure—don't leave it to the main text, where it may be far from the graphic. Emphasize what quantities are important—anticipate the reader's questions and answer them.

Use typographical garnish sparingly—be creative, but in small steps. A well-placed symbol or label can connect themes or indicate the purpose of text (e.g. triangles suggest a legend).

USE SMALL MULTIPLES

Use ink sparingly to make compact figures legible—dense is not necessarily crowded. Explain an encoding once and reuse it. Create a visual key for complex encodings and choose graphical explanations over text.

Avoid visual complications that are not relevant—for example, color blending can create distracting intersections of color. Superimpose white outlines to emphasize shapes with an opaque fill.
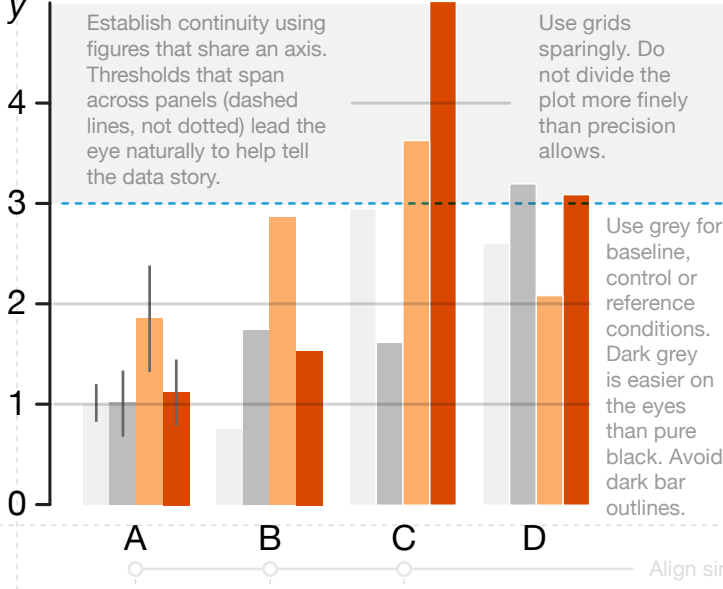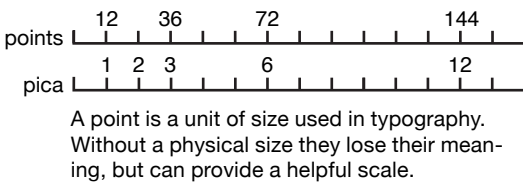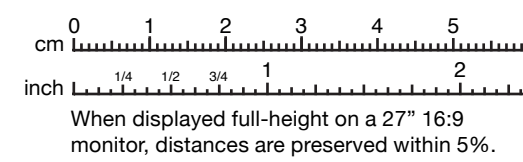
TABULATE plots and text seamlessly with a column or row for explanations. Italicize text with care and look for unintended italics in subscripts.

ARROWS imply a relationship or change. Do not use them to guide the eye, which can be achieved with spacing and alignment.

Align independently of subscripts.

A   B   C

T_0

Establish data tracks with light fills.

U_1

V_2

W_3

MAINTAIN AND CONTROL PROPORTIONS

This poster is 16" × 12" (1152 × 864 pt), uses Helvetica Neue with a 5, 8, 13, 21, 34, 55 pt scale ladder and is legible on most screens.

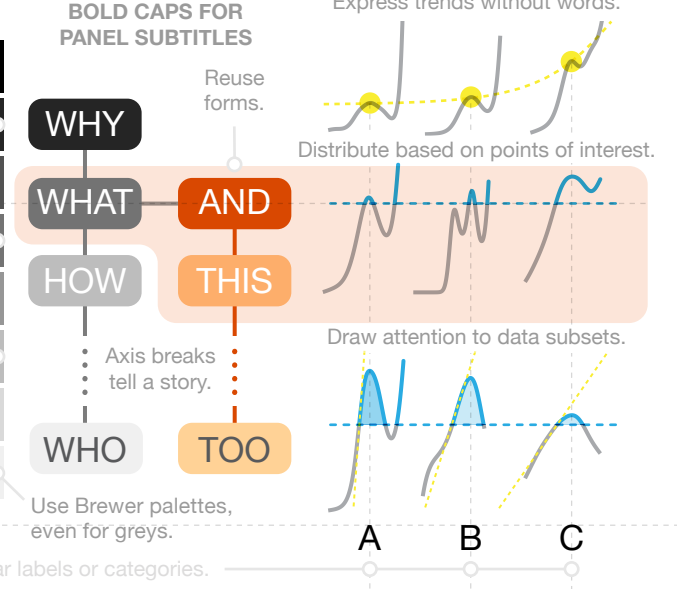Sans-serif is clearer than serif at small sizes and suitable for modest amounts of copy.

Keep line length short and hyphenate instead of fully justifying.

cm   0   1   2   3   4   5

inch   1/4 1/2 3/4   1   2

When displayed full-height on a 27" 16:9 monitor, distances are preserved within 5%.

points   12   36   72   144

pica   1 2 3   6   12

A point is a unit of size used in typography. Without a physical size they lose their meaning, but can provide a helpful scale.

5 8 13   21   34   55
4 6 10 16   26   42

Select type sizes from one or a union of two modular scales built on the Golden Ratio (e.g., $55/34 \approx \phi = 1.618...$).

EVERYTHING IS IMPORTANT, BUT SOME THINGS ARE MORE IMPORTANT THAN OTHERS. Establish a visual hierarchy by emphasizing your hypothesis, conclusion and the key points that connect them. Relegate protocols, technical methods, and other minutiae to the bottom of the poster. Always be mindful of what the reader needs to know to understand enough to ask insightful questions and frontload this information.

FORCE LINE BREAKS that split a sentence into noun phrases or offer a natural pause, such as at a comma or a period. Balance layout by shortening sentences—there are many ways to say something and some ways are easier to typeset. Do not let a template bully you into using a specific column width. Change proportions to suit content.

AVOID OBVIOUS HEADINGS such as "references". Citations can be set in a block of text, with bold numbers like this **1.** R. Bringhurst, *Elements of Typographical Style.* 4th ed (2012) and **2.** W. Strunk Jr., *Elements of Style* (1918). Unless a specific citation style is required, use a compact style that also includes the title.