

Title of Your Poster

Author1 and Author 2

Abstract:

The abstract should give a summary of the question(s) that were addressed in the lab you performed, an overview of the results and a concisely worded conclusion or two.

Materials and Methods:

This should give a brief description of: (1) plant materials that were used; (2) general methods, particularly if they differed from the protocols outlined in the lab write-ups. Notice on this 24" wide poster, a column of text takes up about half the width of the poster; posters are very difficult to read if the text is extended to the full width of the poster. Keep the columns of text to about 9" for ease of reading. This will also allow for room around the border and some space between the columns.

Results:

This is the heart of the presentation, however, it can be very difficult to follow if there is a large amount of text. One way to make this more manageable is to break down the lab into groups of observations that can be presented in either Figures or Tables. Concisely worded legends, in most cases, will suffice for the text.

Below is an example that represents a project being carried out by a group of undergraduate students in my lab.

Figure 1. Arabidopsis harbors a large gene family encoding calmodulin-like proteins (CMLs). The functions of CMLs, however, are almost entirely unknown. We obtained cDNAs encoding the CML proteins indicated by RED arrows in the figure. The sequences were subcloned into a modified pET24d vector, expressed as 6X His-tagged fusion proteins in *E. coli* BL21 (DE3) and purified by NiNTA-agarose affinity chromatography. Figure is modified from McCormack et al. (2002).

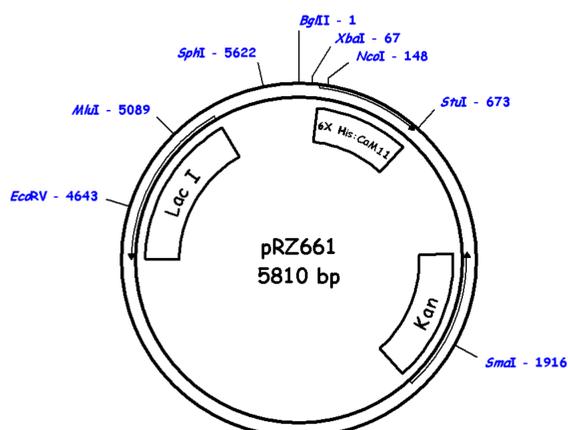
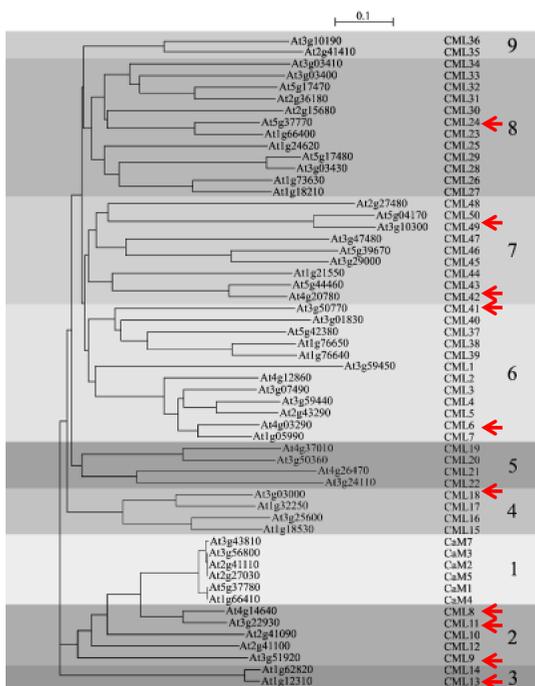


Figure 2. Physical map of an expression vector typical of the arrangement used for expressing 6X His-CML proteins in *E. coli*. Protein expression was induced in exponentially growing cultures by adding IPTG to 1 mM followed by continued growth at 30°C for 18 hours.

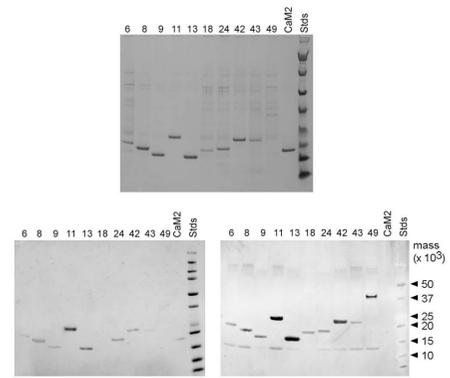


Figure 3. CMLs share immunological relatedness with human CaM. Top: Proteins (~1µg) were fractionated by SDS-PAGE and stained with Coomassie Blue. Bottom: Protein gel blots reacted with two different polyclonal antibodies raised against recombinant human CaM.

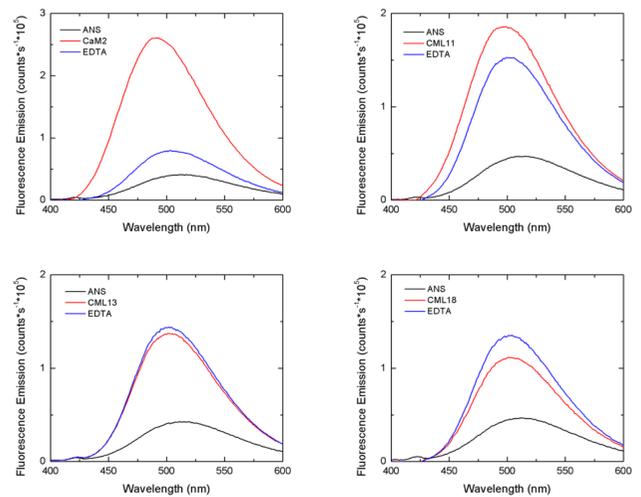


Figure 4. CML proteins do not expose large hydrophobic surfaces in the presence of Ca²⁺. Samples of purified proteins were added to a 10-fold molar excess of 1-anilino naphthalene-1-sulfonic acid (ANS) in buffer containing 20 mM Hepes-KOH pH 7.2, 100 mM KCl and 100 µM CaCl₂. After recording the fluorescence emission spectrum, EDTA was added to a concentration of 5 mM and the change in fluorescence was recorded.

Discussion/Conclusions

Your poster should contain some conclusions you reached from the experiments or exercises you carried out. Often, bullet points make reading and digesting these much easier for someone who has not actually done the work. For example:

- Figure 3 shows that, based on their reactivity with anti-human CaM polyclonal antibodies, many plant CMLs share structural similarities with vertebrate CaM.
- A hallmark of CaM's mechanism of action is Ca²⁺-induced exposure of hydrophobic surfaces, which serve as the primary points of contact with many CaM-interacting proteins. Figure 4, however, shows that CMLs at best expose modest hydrophobic patches; some CMLs in fact appear to expose less hydrophobic surface area in the presence of Ca²⁺ than in its absence. These results suggest that the mechanism of action of CMLs is distinct from that of CaM.

References:

If you cite any primary literature, the source should be indicated here. See the caption to Figure 1 to see where and how the reference below was cited in the poster.

McCormack, E. and Braam, J. (2003) Calmodulins and related potential calcium sensors of Arabidopsis. *New Phytol.* **159**, 585-598.