Anatomy of a Poster

General Content

The purpose of creating a poster is to present your work in the most concise and informative way possible.

Someone viewing your poster should be able to understand your research project without you being right there to explain it.

Abstract

The abstract summarizes your work – it should include some background, methods, major results and your projects relevance to other researchers work.

It is helpful to read the abstracts in journals in your specific field to get an idea as to what the structure of an abstract is and what its contents should be. Typical abstracts are 150 – 250 words depending on the journal or conference.

You can use the abstract you submitted for the conference as the abstract in the poster unless its contents are significantly different from what you will be presenting in the poster.

For research that has yet to yield results at the time of the abstract submission you can describe any preliminary results you have obtained, describe what further experiments you plan to do and what you predict those results to be.

The Abstract should be about 26 point font.

- *View Tab 4 in your McNair binder for additional information about abstracts.*

Title

The title should describe your work in as few words as possible and will generally include the system you are working on and the methods of study as in the example below.

Sci:

FAR-UV TIME-RESOLVED CIRCULAR DICHROISM DETECTION OF ELECTRON-TRANSFER TRIGGERED CYTOCHROME *C* FOLDING

E. Chen, P. Wittung-Stafshede§ and D.S. Kliger**

* University of California, Department of Chemistry & Biochemistry, Santa Cruz, CA 95064
§Tulane University, Chemistry Department, New Orleans, LA 70118

Hum:

Who is Laughing: Self-directed Stereotypes in Chicano Comedy Films

Carlos Jimenez, DePaul University
Mentors: Dr. Ignacio Corona, Department of Spanish & Portuguese, The Ohio State University

DO NOT forget your colleagues and their affiliations in the authors list. The authors and affiliations are generally in a font size that is smaller than that used for the title. If you are presenting the poster you are the first author. Your adviser is listed last and all others are listed, in order of contributions, between the first and last authors.

The Title should be about 86 point font. The authors should be about 44 point font and the affiliations should be about 40 point font.

UCSB McNair Scholars Program

Introduction

Your introduction should give a brief background of the current work that directly pertains to your research project.

Sci Example:

To date, the fastest observation of protein secondary structure folding in the cytochrome *c* have been reported by stopped-flow CD studies on oxidized cytochrome *c* (oxCyt*c*) (1,2). In these studies 44% of the native CD signal at 222 nm was observed within the 4 ms dead time of the instrument. A kinetic study of this 'burst phase' can provide information on how many intermediates participate in the fast secondary structure folding and on what time scale.

Hum Example:

Self-directed jokes are utilized by individuals stereotyping themselves using stereotypes usually imposed on them by others. Popular uses of self-directed jokes can be seen in standup comedians Chris Rock and George Lopez, shows like The Dave Chapelle Show, and concerning of interest to this project, the films from Cheech & Chong. Studies of the self-directed stereotypes have been noted as having a subversive effect. This research questions the efficacy of self-directed stereotypes in the Chicano audience.

It should briefly describe your experiment/project and then what your results are and/or what they mean.

Sci Example:

For studies of reduced cytochrome *c* (redCyt*c*) with ns to ms time resolution we have used electron injection to initiate protein folding. This method relies on the differences in the titration curves of redCyt*c* and oxCyt*c*. Injections of an electron into unfolded oxCyt*c* rapidly generates the initially unfolded for of redCyt*c*, which then folds into its equilibrium native conformation.

Using time-resolved CD (TRCD) spectroscopy, coupled with photoinduced electron transfer to trigger protein folding, we have probed the early dynamics of the redCyt*c* protein folding. The results of these studies in the far-UV region show that in <4 ms there is formation of 25% native structure. The kinetics of secondary structure formation can be described by an early 5 μs intermediate, at which time 20% of the native structure is observed, and two slower intermediates, 6 and 110 ms.

Hum Example:

The television may at first seem to be a mode of distraction for the dine-in customers or a window to the world outside, but like the approach of Anna McCarthy's book, Ambient Television, I will argue that the television is much more; it is a material object that is interacting with its immediate space. As opposed to thinking about the content of the show flowing in, she is interested in the television as a material object and provides case studies of television in bars, airports, hospitals, and department stores. Because McCarthy's work focuses on the space and place of television in predominantly white, middle-class spaces, I intend to build on her arguments by considering the ethnically coded spaces of taquerias, and how Santa Barbara Latinos, as a working-class community, engages with television in public spaces.

The Introduction should be about 30 point font.

UCSB McNair Scholars Program

Materials & Methods

This section (also entitled Methods or Experimental Protocol or Procedures . . .) describes how you did the experiments. For example, sample preparation, data analysis, spectrophotometric measurements, etc . . .

Sci Example:

Sample preparation. Cytochrome *c* samples (100 µM) were prepared in 0.1 M sodium phosphate buffer that contained 3.5 M guanidine hydrochloride and 500 µM NADH (pH 7). The protein samples were deoxygenated with argon gas for 30 minutes before it was transferred to a glove bag that contained a positive nitrogen or argon atmosphere.

Data Analysis. Multi-wavelength TRCD data were analyzed using single value decomposition (SVD) and global analysis procedures. Algorithms for these methods were written in the mathematical software package Matlab.

If the protocol is common in your field then describe it very briefly or focus on the unique part of your study. If your protocol has been published previously you can describe your modifications and then refer readers to the article for details.

Hum Example:

This paper is an ethnography of ten different taquerias in Santa Barbara, Goleta (a city within Santa Barbara County, west of Santa Barbara) and Carpinteria (also a city in south Santa Barbara County, east of Santa Barbara), CA, that offer cable television for customer entertainment. The three cities are in geographical proximity to one another under the title of Santa Barbara County, and all have significant Latino populations: Santa Barbara 35% (136,338), Goleta 22% (12,326), and Carpinteria 43.5% (6,175). To delve closely into the spaces I restrict my analysis to four taquerias that are exemplary of the practices of the domestic extending outwards, and will include the other taquerias when relevant. With the permission of the staff, I sat and observed the customers and spaces in each taqueria for several hours, which included breakfast, lunch, and dinner at the majority of the taquerias.

Sci Example:

Circular Dichroism Measurements. CD spectra were measured on an AVIV 62DS spectrometer. Samples were temperature equilibrated for 15 minutes before data collection. The data were integrated over 5 s every 1 nm using a 0.5 nm bandwidth in the 200-300 nm range spectral.

Photoinduced Electron Transfer Experiments. The transfer of an electron from NADH to cytochrome *c* follows absorption of a photon from a Quanta Ray DCR-11 Nd:YAG frequency upconverted laser. The 7 ns, 355 nm, 36 mJ pulse has a 6 mm x 5 mm cross section. Spectral changes resulting from the electron transfer event were probed with a xenon flash lamp. The laser and probe beams entered the cell at an angle of 30 °, with the probe beam propagation axis normal to the face of the sample. The probe eam was focused onto the slit of the spectrograph and detected by a gated optical multichannel analyzer (OMA). The details of the TRCD system have been described previously (25, 26) and will not be discussed here.

Another alternative is not to have a specific Materials and Methods section, but to incorporate the methods into your Results Section. For example, you can use a figure that describes the above TRCD laser apparatus as Figure 1 or your Results Section.

The Methods section should be about 30 point font.

UCSB McNair Scholars Program

Results

This section will include the figures of your results. Remember that a figure can say everything. Therefore, if a simple figure legend or a simple title is sufficient, then do just that. Try to use the same font size for the figure legends as you use for the introduction, discussion, and so on.

It is helpful to number your figures so the reader knows where to go next on your poster.

The Results section should be about 30 point font.

Conclusions/Discussion

Entitle this section as you wish – some describe it as conclusions, others as discussion. This section will summarize the results for the reader and it does not have to be long. You may itemize your conclusions (1 ---, 2 ---, 3 ---) or write a brief paragraph to describe the results. Use this section to present your own ideas, propose your own future experiements and to see what kind of response your ideas get.

Sci Example:

Using electron transfer to trigger the redCyt*c* folding reaction, we are now able to monitor secondary structure dynamics in the 'burst' phase. The reduction step is accompanied by the appearance of secondary structure within 5 μs, reflecting folding of a Met-ligated subpopulation of protein molecules. The secondary structure stays almost constant until the millisecond time scale, where a small decrease in the magnitude of the CD signal is tentatively associated with an 'unfolded' phase. Subsequently, an increase in CD signal with a time constant of 6 ms is followed by a 110 ms process tht is characterized by formation of the native protein. The 110 ms component is associated with a subpopulation that is trapped in an Fe(II)-His ligation until exchange with Met facilitates folding.

Or

1. Using electron transfer to trigger the redCyt*c* folding reaction, we are now able to monitor secondary structure dynamics in the 'burst' phase.
2. The reduction step is accompanied by the appearance of secondary structure within 5 μs, reflecting folding of a Met-ligated subpopulation of protein molecules.
3. A small decrease in the CD signal is tentatively associated with an 'unfolding' phase.
4. A large increase in the CD signal ($\tau \sim 100$ ms) is associated with a subpopulation that is trapped in an Fe(II)-His ligation until exchange with Met facilitates folding.

Hum Example:

Like many people struggling to find the resources to maintain their domestic spaces Latinos are making do. They are shafted, shoved, forgotten, and compressed, but they react appropriately. The phenomenon of tactical domesticity that I have described reveals that their actions relate to a material object. The television becomes an important component to constructing a domestic outside the home. It provides an object to poach, to manipulate, and to "own," as if at home. The irony is that while facing harsh economic factors, like the California housing market that reduces Latinos to smaller spaces with higher rates of overcrowding than other ethnic populations, yet their space extends outside the home to even larger spaces.

The Discussion/Conclusion should be about 30 point font.

UCSB McNair Scholars Program

Acknowledgements

You should always acknowledge the agency that funds your research, i.e. NIH, NSF, the Department of Education's McNair Scholars Program, the Chemistry, Biology, Physics . . . Departments, and anyone you think has helped you and deserves thanks (such as your Faculty Mentor).

The Acknowledgements should be about 18 point font.

References

Be sure to always reference other researchers' work. That is the proper academic etiquette.

The References should be about 16 point font.

Visual Structure of Your Poster

The way your poster looks can either encourage or discourage people to approach your work.

1. ***Text & Figures***

   Do not overwhelm your audience with too many words or too many figures. You have to find a balance.

   5-7 figures is average, depending on the size of the figures and the size poster your conference or colloquium allows.

   Abbreviations (abbr) will help save some space on your poster. The first time you use the word you plan to abbreviate, write it out and in parentheses indicate the abbr. Use the abbr from then on in the text.

   Do not feel like you must say everything in your poster, that is what a paper is for. *A good poster should provoke interest and questions.*

2. ***Font***

   Use a font that is easy on the eyes (Time New Roman, Palatino Linotype, Helvetica Calabria . . .) and large enough to read form about 2 feet away. A good size would be between 28 and 32 point depending on the font type. Be aware that too large a font will take up precious space and will not look right.

3. ***Figures & Figure Legends***

   A picture is worth a thousand words. For posters it is important for figures to do as much of the "talking" as possible. Don't forget to give your figure a caption or title to aid the viewer.

   The figures you choose should be clear, large and uncluttered. You need to be able to see the figures clearly from 2 feet away. Also remember that line types of spectra, such as UV-Vis, IR and NMR; graphs; x-y axes; ect should also be heavy enough to see from 2 feet away.

   Remember to number your figures to aid your viewer.

4. ***Size Restrictions***

You should always know the poster dimensions that your specific conference requires.

UCSB McNair Scholars Program

5. ***Abstract***

The abstract on your poster should match what you initially submitted for the conference. The abstract can be of slightly smaller text than the rest of the poster content as the conference attendees will have read your abstract in the conference program.

6. ***References & Acknowledgements***

To save space, references and acknowledgements can also be printed out in smaller font (~16 point).

Be sure to include the agency that funded your research in your acknowledgements.

Know Your Work!

Know the literature and background information related to your work. Understand why you did your study and its significance to the big picture in your field. Know why you used the techniques you presented.

Know how you analyzed your data and the significance of the analysis.

If a viewer asks for more information be sure to send it to them in a timely manner – you want to maintain a good, responsible reputation and build a useful network.

Do not b.s. an answer to a question you do not know. Instead, say something like: "That's interesting; I will have to look into that and get back to you."