### What is on a Poster?

Please note: Due to the size of poster files and the size limitations for attachments in MSOE email accounts, please do NOT submit posters to an MSOE email account. We have created a gmail account, which can handle larger file sizes. Please submit posters to <a href="mailto:crestprogram@gmail.com">crestprogram@gmail.com</a>. Since this account is only accessed to retrieve large files, please send an email to <a href="mailto:franzen@msoe.edu">franzen@msoe.edu</a> indicating that you have sent a poster to the gmail account.

A poster is designed to tell your story in the absence or presence of an exhibitor. A visitor to your poster should be able to read/look through the contents of your poster and learn the important points about your molecule. The focus of the poster is not to have lots of text. A poster is a visual aid and should include pictures. Text that is included with the poster should supplement the pictures rather than be the focus of the poster. When looking at a poster for the first time, your eye should see more pictures than text boxes.

Your poster should have the following sections (though many of these sections will not be labeled on the poster):

# **Title Section**

This section should have:

- Logos: On the upper left hand corner of your poster, we will add the MSOE logo, as they are a supporting institution of your work. We recommend that you put your school's logo and your mentor's institution logo in the upper right hand corner.
- **Title.** The title should have the name of the molecule and may have a brief description of the function or significance of the molecule. This should be located between the logos.
- Authors. The authors are the students who are performing the research and model design. The
  educator and research mentor will be listed separately. Names may be listed in order of level of
  contribution with the person doing most of the work listed first, or the names may be listed
  alphabetically.
- **Educator(s).** List the name(s) of any educator(s) with whom you worked.
- Institution. Name of school, address, city, state, zip code
- Mentor(s). List name of mentor, title, research institution, city, state, zip code.

This probably looks familiar to you as this is the same information that we have asked you to have on your abstract.

#### **Abstract**

This will be the same abstract that you have already submitted. As you develop your presentation, you may wish to revise your abstract as you become more familiar with the story that you are telling. Please feel free to do so.

#### Introduction

This section should include an introduction to your story. After a person reads your introduction, s/he should be able to briefly tell you what your molecule is, what its function is and any other interesting information about your molecule. Remember that the focus of your presentation is NOT on the physical model, so now is not the time to describe the details of your model. The focus of your story is on the function and significance of your molecule.

What is interesting about your molecule?

- What role does it play in your body when it functions normally?
- Does it play a role in a disease?
- If the molecule is mutated or missing, what happens?

This section should be brief, as the remainder of your poster will be more informative in terms of specific details. This section is designed to give the reader information about your model that they should know before they look at the rest of your poster. This is where you can engage your audience and make her/him want to look at the rest of your poster.

#### Methods

This section should include a brief description of the technology used to create your model. This is where you can talk about Jmol and the ZCorp printer, as well as the Center for BioMolecular Modeling at MSOE. This is not absolutely necessary, but is okay to add.

# Story

In this section you will go into more detail about your molecule. What is the molecular story behind this model? Remember that you need to start with a big picture, or a more general question. Be sure to provide enough background information about your topic, before getting into the specific protein or macromolecule that you have modeled.

- What story can you tell about the molecule?
- What is the function of the molecule?
- What do we know about the molecule?
- Why are you modeling this molecule?
- What interests your mentor interested this particular molecule?
- What questions are being asked about this molecule?

It is better to use visual aids rather than text boxes in this section. These pictures can be of anything related to your topic. For example, if you are talking about a protein that is located on nerve cells, it would be helpful to include a picture of a nerve cell and where the protein you are modeling is located. Since a poster is a visual presentation, you do not want to laden the poster with lots of text. Replace as much text as you can with pictures, diagrams, schematics, etc. When you are developing your story, pretend that you are telling it to someone who does not know anything about your protein. What information will they need in order to understand what it is you are describing? Be sure to label your images and include a citation to the source of the image.

## How Do We Know?

This section of the poster will provide an explanation of one or more experiments that elucidated the protein structure. You may include data from a paper (citing the source); but also describe how the data was collected. It is more important to present the overall experimental design than to get bogged down with specific incubation times, buffers, etc.

# What's the Next Question?

Throughout the semester, you've been working with a research mentor who is studying the protein you have modeled. Here you can elaborate on how the model might be used to further the research, or, based on the information gleaned from the model, sketch out the next series of experiments to answer a burning question that has arisen from the project.

## **Summary**

This section should have a short paragraph in which the information you have presented in the 'Story' section is summarized to two or three sentences.

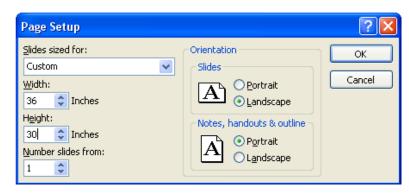
### References

References should be listed in an abbreviated form in small print in the lower right side of the poster. (list first author only, omit title, include link to article online.

# **Technical information About Poster Development**

How do you make this poster? We recommend that you use PowerPoint. In this program, you can customize the size of the page to be the size of the poster (36 in wide, 30 in high). On this larger sized page, you can add pictures and text boxes to accommodate the requirements that we have listed above.

- Customization of the Page Size:
  - Use the File pull down menu and select 'Page setup'. (You may have to click the 'Design' tab to find the page setup.)
  - Set the slide size as 'Custom' and enter the width '36 inches' and the height '30 inches'.



- o Select the orientation of the slide as landscape.
- Once you have set up the page size, add in the different components of the poster. Use standard fonts and contrasting colors. Select a font that is easy to read and not too 'frilly'.
- If you have developed an oral presentation using PowerPoint, you can arrange those slides on your poster page to tell your story. Please bear in mind that you may have to modify items to make them appropriate for the poster.
- Recommended font sizes
  - Title: 36 ptHeadings: 36 pt
  - o Text: no smaller than 24 pt; most posters use 28-30 pt
  - Picture captions: 18-20 ptReferences, urls: 18 pt
- Selection of colors:
  - The background color should be fairly light. Dark colors don't print well.
  - o If you incorporate a Jmol image into your poster (save as a jpg file), make sure you make the background white before saving the file.
  - o There should not be a lot of 'white' space on your poster. The images and text should fill the space on the poster.
- Arrangement of material:
  - O Your poster should have a clear direction of flow. Generally the abstract is in the upper left corner, and people will read from top to bottom, left to right.
  - You might include arrows to direct your audience through the poster.

A good guide to poster design can be found at http://lorien.ncl.ac.uk/ming/Dept/Tips/present/posters.htm.