How to prepare an effective (poster) presentation

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NSF-REU/UM-SURF Seminar Series
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**Title that hints at the underlying issue or question**

**Your name(s) here**

**Your address(es) here**

**Introduction**

This template has a large title and some subheadings for organizing the text. The main body is divided into sections, with each section having its own heading.

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**Materials and methods**

This section describes the materials and methods used in the experiment or study.

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**Results**

The results section is where the findings from the experiment or study are presented. It includes graphs, tables, and images to illustrate the results.

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**Conclusions**

The conclusions section summarizes the findings and provides insights or recommendations for future research.

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**References**

This section lists the references used in the text. Each reference is cited in the text using a specific citation style (e.g., APA, MLA).

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**Acknowledgments**

This section acknowledges the contributions of others who helped with the work.

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**For further information**

More information on this related topic can be found in the references or on the websites listed in the acknowledgments section.
Is a summary of your research in a visually engaging way.

It must be able to stand on its own as a clear logical presentation of your work without any explanation from you.

The more strikingly visual your presentation is the more people will remember it.

It should be image driven, but must stand alone.

Simply but tightly written.
Why are Academic Presentations Important?

- It represents you and your sponsor’s research.
- It demonstrates expertise.
- Helps practice public speaking.
- Deepens the understanding of the topic.
- Opportunity for teaching and learning, sharing ideas, and create collaborations.
- Demonstrates attention to detail.
- Learn about most current results in the field.
- It is more personal, you interact with people, who are interested in your work, one on one.
- It presents your work even when you are not present.

"The more strikingly visual your presentation is, the more people will remember it. And more importantly, they will remember you."

Paul Arden
First things first…

Do not wait until the last minute to prepare (and print your poster)

Especially true if you know a lot of people are going to be preparing posters for the same event.

Murphy’s Law applies to poster presentations… “In any field of scientific endeavor, anything that can go wrong, will.”, “Nothing is as easy as it looks” and “Everything takes longer than you think”. 
First things first...

Work with your sponsor

◊ Represents their Laboratory.
◊ They need to be involved.
◊ Only they can decide what should be included... Sometimes new data isn’t disclosed until an intellectual property is filed.
◊ They will make corrections and revisions.
◊ You need to get final approval.
Figure out who your audience is…

Prepare your poster according to your audience!

- Who is your target audience?
- How do you want to impact your audience?
- What will you need to do to help your audience understand and appreciate your presentation?

Put yourself in your audience’s shoes and prepare a presentation that you would want to see yourself.
Getting started

Always prepare your data figures first, they will influence your narrative.
Invest time in learning a true design software, as well as Photoshop. Opportunities are endless and it is an extremely valuable skill to learn.
Anatomy of a Lateral Flow Assay
Title

Title, formatted in sentence case (Not Title Case and NOT ALL CAPS), that hints at an interesting issue and/or methodology, doesn’t spill onto a third line (ideally), and isn’t hot pink.

It needs to be catchy.

Write it big, and bold, 85 pts are considered a good size for a title.

It can be serif or non-serif. Many people advocate non-serif fonts for titles.

Format the title in sentence case so that the Latin binomials, gene names, allele names and such can be immediately recognized. Do not use all caps.

Keep it down to 1-2 lines if possible. It should contain only the essential number of words People tend not to read long titles.

Avoid titles with colons if possible: They are overused.
Anatomy of an academic poster

Affiliations

Colin Purrington
666 Teipai Street, Posterville, PA 19801, USA

Write it **big**, 56 pts are considered a good size for affiliations.

You can write the department and institutions smaller maybe a **48** pts are considered a good size for affiliations.
Title of the abstract should be the same as your poster title.

250 words max.

It should include the following:

- The research problem
- The methods
- The observations
- Analysis, assessment and implications
- Major findings, results and conclusions

In Vivo Assessment of Dexamethasone (DXM) Infused and Coated Poly(lactide-co-glycolic acid) (PLGA) Microneedles as an Improved Drug Delivery System for Intracorneal Biodegradable Devices

Deven Panbaly\(^1\), Stefania Garoneh\(^2\), Ruperez Rao\(^1\), Neil Nagy\(^1\), Ravee Dileep\(^1\), Sagan Deaf\(^1\), Sylvia Dussarel\(^1\), Fred Talbot\(^1\)

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Deven Panbaly, Phone: (305) 243 - 6328, Fax: (305) 243 - 3955, email: dpavaly@umiami.edu

Stefania Garoneh, Phone: (305) 243 - 6577, Fax: (305) 243 - 3300, email: stefania.garoneh@umiami.edu

In vivo drug delivery techniques are challenging due to the inherent complexity of the ocular anatomy, which limits molecular transportation. A promising solution is the use of biodegradable polymers because the continuous release of therapeutic molecules without introducing foreign material is highly desirable. Using a microneedle approach could help deliver sustained drug infused polymeric microneedles to the cornea and be placed inside the cornea, allowing the appropriate amount of drug to be released over time to the desired area.

Biopolymer/microneedles were prepared by mixing PLGA polymer and DXM in an appropriate solvent. The solution was cast into a custom made poly(dimethylsiloxane) (PDMS) mold engineered via photolithography at the University of Miami’s Nanofabrication facility and shaped as the desired microneedles. The needles were allowed to dry, removed from the mold, and coated with DXM. A fluorescent compound, rhodamine B, was used instead of DXM to study the drug release profile. The prepared microneedles were analyzed in an artificial tear composition solution by checking the absorbance of the perfluorohexane solution until the absorbance of the solution at 552 nm is constant. High performance liquid chromatography was also performed.

Occlusion assessment was performed using whole organ of Cornea (BOC) explants dissected from live-individuals as controls, and the BOC explants was exposed to the dexamethasone microneedles in culture. Fluorescent microscopy with visible light cell (HC) returns (FITC-staining) was also performed. ANOVA and Dunnett’s post hoc testing were used for statistical analysis.

PDMA Microneedles: Dexamethasone, Cornea

Poster presentation requested: Deven Panbaly

Email Address: dpavaly@umiami.edu
State the research problem or question and the significance.

Include related current investigations.

Why did you chose to study this problem.

What types of models did you use to answer the question.

Start with general topics then go to the specific topics.

Contains the citations and references.

May have purpose and hypothesis embedded.

Write it with at least 24 pt font size for the body text and sub-headings such as introduction should be 36 points.
Describe procedures and methods detailed enough to allow the audience to understand how the data was obtained. Describe challenges and lessons learned. Use text with subheadings, include charts or figures to summarize and simplify.

Make sure to include:

- Subjects
- Experimental Design
- Drugs, chemicals and equipment used
- Statistical methods
- Why did you chose that method?
Anatomy of an academic poster

Body of the poster (Results)

Usually the largest section but it varies with the field.

Summarizes the data and reports the results of the statistical tests and analyses.

Draw implications and considerations.

Do NOT present raw data.

Make image based, maximize the use of figures. One image is worth 1000 words.

Minimize the use of tables. Usually harder to grasp than figures.

Use figure legends and/captions as text. Put the text near the figure its describing.

~1 paragraph per image/image group.
Simple, effective data displays

They must be easily seen,

Don’t make your audience stand on their head to read your data!
Simple, effective data displays

They must be easily seen,

Make it simple, avoid using legends.
Simple, effective data displays

They must be easily seen,

Don’t make your audience wish they brought magnifying glass with them!
Simple, effective data displays

They must be easily seen,

Make all lines thick enough!
Simple, effective data displays

Make sure your pictures are not fuzzy or pixelated.

This means you need at least 150 dpi resolution figure, 300 dpi is better but shouldn’t go more than that.

Use web graphics with caution. You need something with high enough resolution so it doesn’t look fuzzy when printed.
Simple, effective data displays

Save your line art as .png not .jpg.
Simple, effective data displays

Make sure each of your image has a description and a scale bar
Use color to engage your audience

Color as an organizational tool

Color as an emotional tool

- Periodic Table of Elements
- What colors should you use in marketing?
- Targeting Women:
- Targeting Men:
Use color to engage your audience

Make sure you use 2-3 colors but no more.

Dark type on light color background is easiest to read for many people.
Use color to engage your audience

Make sure you correct colors.

Red on blue appears blurry to the human eye
Yellow on white is hard to read
Blue on red appears blurry to the human eye

Avoid color combinations that create problems for those with color-deficient alleles. You can run the jpg of your poster through

http://www.color-blindness.com/coblis-color-blindness-simulator/

to test if you have issues in your poster.
Pro Tip: If you have access to http://www.Lynda.com utilize it. It is very helpful.
Some aesthetic issues

Make sure you leave an adequate amount of white space around your text boxes.

Do not make your poster too wordy. This is the most common mistake in poster presentations. Aim 1000 words or less including the legends of your figures.

The width of the text boxes should be approximately 45-65 characters.

Use italics instead of underlining. Underlining draws too much of an attention.

When using acronyms and numbers within the body of the text, scale down the font size by a couple of points so their size don’t overpower the lowercase text.

Avoid dark backgrounds for text boxes. Dark text on white is easiest for most people to read.

A few classic font pairings:

- Myriad
- Caslon
- Myriad Black
- Minion
- Franklin Gothic Demi
- Baskerville
- Gill Sans
- Garamond
- Franklin Gothic Medium
- Caslon
Some aesthetic issues

Use a visual hierarchy to guide audience through your poster.

visual hierarchy can be achieved by

- (-/+ space
- Contrast
- Repetition
- Proximity
- Color
- Alignment
- Typography

YOU READ THIS FIRST

You will read this when skimming
You will probably not read this on a skim
You will not read this. Unless a phrase is bolded.
Body of the poster (Conclusions/Discussions)

Very few words.

Bullets are preferred over blocks of text.

Use bigger font if needed.

Summarize “take home” results.

How did your hypothesis work out?

Tie back to the real world problem.
Anatomy of an academic poster

Body of the poster (References/Literature Cited)

Include sources/resources that supported your work.

If someone's work is cited you must include a reference.

Generally “short”. Title is optional.

Keep the font size the same as the size of the normal body.

Format your references carefully. References that are only haphazardly formatted mark a poster, and thus you, as unprofessional and incapable of grasping the importance of details.

Yes you can use EndNote with PowerPoint

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**Literature cited**


Body of the poster (Acknowledgements)

Acknowledge the faculty and staff who supported you.

Thank people—mentor, research group, and people who provided technical assistance.

Reveal possible conflict of interest.

Identify funding agencies.

Can use smaller font.
Do’s of preparing a poster

- Do use the same font type throughout the poster; body, and figure legends and titles and axis fonts need to be the same.
- By the same token, make sure your graphs are consistent. Use consistent axes throughout the whole poster.
- Do left justify your text within the body for the poster.
- Write “data are”, not “data is”. Data is plural, datum is singular.
- If you are reporting a value, leave a space between the number and its unit. Write “16.0 mL”, not 16.0mL. The only units that are written without the space is “%”, “°C”, and the symbols for the degree, minute and second for angle measurements (° ′ ″)
- Make sure that the details on graphs can be viewed from 6 feet away. This includes the axes labels, figure legends, and numbers on axes.
- Format axis labels in sentence case. People process sentence case faster.
Do’s of preparing a poster

- Complete the entire poster in a single platform. Switching from PC to Mac or Mac to PC is inviting disaster. You can lose entire images, have garbled axes, or have serious formatting issues.

- Give your graphs informative titles or phrases. In posters the titles guides the audience.

- Add miniature illustrations to your graphs if possible. Visual additions help attract and inform viewers more effectively than text alone.

- If you include photographs, add a thin line of gray or black as a border to make them stand out against the background.
Don’ts of preparing a poster

- Don’t use illegible fonts like *commercial script* or *brushscript*
- Don’t use fonts smaller than 16 points.
- Don’t vary the width of the text boxes (It is visually distracting)
- Don’t clutter the top of your poster with logos. If you are required to put a logo on your poster put it at the bottom and put it small.

![Poster with Don’ts of preparing a poster](image-url)
Title that hints at the underlying issue or question

Your name(s) here
Your address(es) here

Introduction

The layout for this section should be text-based. Your Title should be brief and to the point. Your abstract should be concise and to the point. Your introduction should be a short but comprehensive account of previous work. Your main section should include a brief description of the experiment, the results, and the conclusions. Your conclusion should be well-supported, and your conclusion should be a substantial amount of your main section. Your conclusion should be well-supported, and your conclusion should be a substantial amount of your main section.

Results

The layout for this section should be text-based. Your Title should be brief and to the point. Your abstract should be concise and to the point. Your introduction should include a brief description of the experiment, the results, and the conclusions. Your conclusion should be well-supported, and your conclusion should be a substantial amount of your main section.

Materials and methods

This section should be text-based. Your Title should be brief and to the point. Your abstract should be concise and to the point. Your introduction should include a brief description of the experiment, the results, and the conclusions. Your conclusion should be well-supported, and your conclusion should be a substantial amount of your main section.

Literature cited

This section should be text-based. Your Title should be brief and to the point. Your abstract should be concise and to the point. Your introduction should include a brief description of the experiment, the results, and the conclusions. Your conclusion should be well-supported, and your conclusion should be a substantial amount of your main section.

Acknowledgments

This section should be text-based. Your Title should be brief and to the point. Your abstract should be concise and to the point. Your introduction should include a brief description of the experiment, the results, and the conclusions. Your conclusion should be well-supported, and your conclusion should be a substantial amount of your main section.

For further information

This section should be text-based. Your Title should be brief and to the point. Your abstract should be concise and to the point. Your introduction should include a brief description of the experiment, the results, and the conclusions. Your conclusion should be well-supported, and your conclusion should be a substantial amount of your main section.
The flow...

- Start with an intro that will catch them.
- Move to methods, briefly summarize.
- Move to results, briefly summarize. Walk through all figures.
- Transition to conclusions.
- Acknowledge people and agencies.
- It is acceptable to number your panels for other people to follow easily.
“Do’s” During Presentation

- Make sure you have prepared a 2-sentence overview of why your research is interesting and relevant.

- Avoid vagueness. Say “our findings showed that the size of the nanoparticles are directly correlated with the concentration of starting materials” instead of “The results are shown here”

- Keep a plastic cup of candy with your poster. People love candy.

- If you have unpublished data or a research that can be viewed as offensive to non-scientists attach a “Please do not photograph” note on the poster.

- Use your fingers or a pointer to point to specific parts of your poster.

- Thank your viewers for visiting.
“Don’ts” During Presentation

- Do not refer to notes when presenting your poster.
- Do not eat, chew gum or tobacco.
- Do not put your hands in your pockets.
- Do not wear heavy scents. Or also do not have offensive body odor.
Some Tips to Make Your Poster Stand Out from Others

- Use a hidden panel approach.

\[
X_f = \left\{ \begin{array}{l}
\frac{\sum_{i} w_{i} c_{i} X_{i}}{\sum_{i} w_{i} c_{i}} \\
\end{array} \right. 
\]

Figure 1. Lift this flap to see solution.

- If you have 3D-data or complex molecular structure make 3D images and have cheap 3D glasses.

- If your topic is related to a thing or an object attach it. For example if you have 3D printed housings for smart phones bring one with you.

- If you wish to present movies attach an Ipad or an I phone. Alternatively put your video online and attach a QR code on your poster.

- Other ways of improving posters include attaching sounds (Ipad or sound postcard), odors (odor sample bags), you can even use a virtual reality content using a VR goggles and smartphones.
Just in Case Items

◊ Carry your poster with you at all times…

◊ Make sure you have with you…

Do not leave as checked baggage

◊ Be there on time

Heavy Duty Push pins

◊ Dress for situation

Mini Posters

Be there at least 15 minutes before the posters are supposed to hang

Water

◊ Wear comfortable shoes

Business Cards

Notepad and a pen
Design a good, logical structure/narrative

Make sure your scientific talk a story with a beginning, middle and end.

A typical plot diagram for a thriller is similar to the narrative structure of a scientific presentation. Just as a protagonist overcomes obstacles through a series of action scenes, a scientist pursues scientific objectives through a series of experiments.
Design a good, logical structure/narrative

Start and end your talk with the big picture.

A good science talk starts with a general question and becomes progressively more and more specific until the speaker asks a unique scientific question.

A good science talk ends by progressing from specific conclusions to more and more general statements, placing results in a broader context.

- How is the Earth’s climate affected by global warming?
  - As the earth warms, some regions demonstrate anomalous cooling.
  - Is the decrease in Arctic sea ice in autumn linked to increases Northern Hemisphere snow in the winter?
- What are the molecular mechanisms behind the aging process?
  - In sexual animals that don’t self-replicate, telomere shortening correlates with cell senescence.
  - Is telomere maintenance different in sexual animals and asexual animals that do self-replicate?
- How do chemicals cycle through the environment?
  - Isotopes of iodine play significant environmental roles.
  - How does $^{131}$I cycle throughout terrestrial ecosystems?
  - We showed how ATP binding triggers activation of a P2X receptor.
  - This mechanism explains many experimental findings and provides insight for the future design of antagonists.
  - Our methods can be universally applied to other ion channels involved in various physiological processes.
  - We determined the three-dimensional structure of the IRES subdomain I in complex with a benzimidazole translation inhibitor.
  - Our findings will be a valuable starting point for structure-based designs of 
    HCV inhibitors.
  - Such drugs may lead to the development of anti-HCV drugs for infected individuals worldwide.
  - We showed that hatchery pink salmon were larger and grew faster than wild pink salmon during the first summer at sea.
  - Differences in growth rate may indicate variable growing conditions or food consumption.
  - Evidence of competition could indicate that carrying capacity has been reached for the ecosystem.
Design a good, logical structure/narrative

- Inform your audience why they should care about your subject.
- Somewhere near the beginning of your talk, clearly state your scientific research question and goal/hypothesis.

- For longer talks, prepare for the inevitable shifts in audience attention.
Design a good, logical structure/narrative

◊ For longer talks (30-60 min) break up detailed information by occasionally “coming up for air”, summarizing what you have said and introducing new concepts.

◊ Unite sections of a 30-60 minute talk using a “home slide.”
Design a good, logical structure/narrative
“Next, we wondered whether FOXO3 directly binds to the NPY promoter. To test this hypothesis, we used a chromatin immunoprecipitation assay. This assay involves using an antibody to bind to and purify a protein of interest (in this case, FOXO3), then uses PCR techniques to amplify any DNA that is bound to the protein. We found that the NPY promoter was indeed bound to FOXO3, supporting our hypothesis that FOXO3 binds and interacts with the NPY promoter.”
Design a good, logical structure/narrative

Deliberately emphasize one to three take-home messages.

Key Point #1
Nrf-2 is expressed in mesenchymal stem cells

If you only remember one thing....
Elephants are capable of vocal learning

Overall Result:
We developed a method to culture mature astrocytes
Design visually appealing slides that easily communicate information

The best backgrounds are simply that: backgrounds that, by themselves, lack visual content.

**Pro Tip:** Use a white slide background for a small room and use a black slide background in a relatively large room.
Design visually appealing slides that easily communicate information.

Add design instead of a decoration.

Before

The ChIP assay

- Crosslink proteins to DNA
- Sonicate to shear DNA
- Immunoprecipitate with antibody to protein
- Reverse crosslinks and purify DNA
- Run PCR using primers for DNA of interest

After

Chromatin immunoprecipitation

Used to determine if a protein interacts with a specific region of DNA

1. Crosslink proteins to DNA
2. Sonicate to shear DNA
3. Immunoprecipitate with antibody to protein
4. Reverse crosslinks and purify DNA
5. Run PCR using primers for DNA of interest

Cute pictures may help fill a slide with “stuff,” but designing a slide to communicate with your audience adds meaning, value, and utility.
Design visually appealing slides that easily communicate information

Use color wisely.

Ensure there is high contrast between your foreground and background colors.

Use color to emphasize important information.

Use color sparingly so the audience knows what to look at.

Ensure everything on your slide is easy and comfortable to see. Instead of using color to decorate, use color to emphasize what is most important.
Design visually appealing slides that easily communicate information

Use a sans serif font.

Serif fonts have slight projections that finish off the stroke of a letter. This can be helpful in a written document or a book, but a sans serif font is easier to read on a slide projected onto the screen. Commonly used sans serif fonts include:

- Calibri
- Century Gothic
- Gill Sans
- Helvetica
- Myriad Pro
- Tahoma
- Verdana
Design visually appealing slides that easily communicate information

Ensure that all text is easy for the audience to read.

On a slide, it is harder to read underlined words or words in ALL CAPS

If you want to emphasize a word, use bold letters or italics

The font size should be large enough to be seen in the back of the presentation room (20-36 pts.)

It is OK to use a smaller size font for the citations and foot notes but they still should be legible in the back row.
Design visually appealing slides that easily communicate information

Keep text on a slide to an absolute minimum.

A common mistake....
- How many times have you seen a slide like this? Probably too often.
- The use of too much text on one slide is so common that many of us don’t even think to question it.
- If presenters are going to write out everything they are going to say during their delivery, then what is the point of attending their presentations? They might as well send their slides to us over email and we can read them whenever we want.

....but no less annoying.
- Seriously, slides like this are awful. Especially when every slide in the entire presentation looks like this.
- Too much text on a slide is one of the top reasons why audiences stop paying attention.
- One hundred years ago, movie studios realized that silent movies shouldn’t contain too much dialogue because audiences didn’t enjoy reading text on a screen. You’d think we would have learned the same concept in slide presentations by now....

Limit yourself to only two lines of text for any single title, bullet point or statement on a slide. Limit the total amount of text to only about one fourth of the total area of the slide.
Design visually appealing slides that easily communicate information

Keep text on a slide to an absolute minimum.

- **but no less**
  - Seriously, slides like this are terrible when every slide in the deck looks like this.
  - Too much text on a slide is a good reason why audiences stay tuned out.
  - One hundred years ago, we learned that silent movies should have a lot of dialogue because audience text on a screen. You'd think we'd learned the same concept by now....

Much Better!

Give yourself a goal of including at least one image in every slide.
Design visually appealing slides that easily communicate information

Use slide titles to make a point

Use a title to make a point, such as when presenting results, background information, ideas, etc.
Design visually appealing slides that easily communicate information

Use slide titles to make a point

Don’t use generic words or phrases like “Background”, “Results” or “Conclusion”. Instead try to be specific about the larger point you want to emphasize.
Design visually appealing slides that easily communicate information

Use slide titles to make a point

Don’t use a title when the contents of a slide are obvious and you don’t need to emphasize a point.
Design visually appealing slides that easily communicate information

Try to make only one point per slide

Audiences can only reflect meaningfully on one piece of information at a time. Therefore, try to only show one chart or figure per slide unless you have a good reason not to do so.
Design visually appealing slides that easily communicate information

Try to make only one point per slide

If you want to present two or more figures for side by side comparison or discussion, consider presenting them individually at first and then grouping them together afterwards.
Design visually appealing slides that easily communicate information

Use the best photos/images for talks.

If the photograph is high enough resolution, consider enlarging the photo to fill the entire slide to increase the impact.
Design visually appealing slides that easily communicate information.

Use the best photos/images for talks.
Design visually appealing slides that easily communicate information

Use the best photos/images for talks.

If a photograph does not fill the entire slide, place it within a minimal frame so that it stands out from the background.
Use the best photos/images for talks.

When presenting fluorescent images, use a dark background so that the fluorescent signal is the brightest aspect of the visual scene.
Design visually appealing slides that easily communicate information

Use animation and slide transitions wisely.

What the presenter is thinking:
I look more skilled because I'm turning my photo into confetti!

What the audience is thinking:
I've used that before
Cute sparkles!
I wonder if that is a PowerPoint trick or a Keynote trick?

What the audience is not thinking about: your message
Design visually appealing slides that easily communicate information.

Strive for a simple slide layout that instantly communicates information.

Too busy and overwhelming
Design visually appealing slides that easily communicate information

Strive for a simple slide layout that instantly communicates information.

Too random and chaotic
Design visually appealing slides that easily communicate information

Strive for a simple slide layout that instantly communicates information.

- Is it possible to crystallize the ADC-3 protein?

Too sparse and asymmetric (and why use a bullet?)
Design visually appealing slides that easily communicate information.

Try to produce the most simple, easy-to-read slides possible.

The old maxim, “less is more” truly holds for slides. Putting less content on a slide adds greater impact to the information that you choose to show, increasing the clarity of your message and simplicity of your delivery.
Rehearse and practice for a good delivery

Rehearse as much as possible.
Rehearse and practice for a good delivery

Don’t use slides as presentation notes.

◊ You design boring slides.

◊ You look at your slides rather than maintaining eye contact with your audience.

◊ You reduce your ability to be present and attentive to the real-time needs of your audience.

◊ Slides are for the audience, not the speaker.
Rehearse and practice for a good delivery

Try to “be present” as much as possible.

Be aware of....

**Yourself:**
- Are you talking too slow, too fast, too quiet, too loud, or too monotonous?
- How is your posture?
- Is anxiety causing you to perform a nervous, repetitive movement?

**Your audience:**
- Is your audience showing signs of confusion, boredom, or impatience?
- Where is your audience maintaining eye contact?
- Is your audience distracted by something else in the room?

**Your environment:**
- Is the lighting optimal for viewing slides and keeping the audience awake?
- Is the temperature too hot or cold?
- Are there visual or audible distractions?
Rehearse and practice for a good delivery

Prepare for inevitable nerves and anxiety.

❖ Rehearse for the 5 minutes before your presentation begins. (That’s when you are most nervous)

❖ Memorize and rehearse the first 1-2 minutes of your talk most of all. (Anxiety begins to fade for most people once they get through the first minute of their presentation)

❖ Bring a water bottle.
Rehearse and practice for a good delivery

Don’t forget to practice using technology.

◊ Know how to use your computer to control your presentation. Know your shortcuts.

◊ Practice using a laser pointer. Use it sparingly. Just like any highlighting tool, the more you use it, the less your highlighted material stands out.

Don’t aim it at the audience. If your hands are shaking, rest your pointer holding hand on your other hand.

◊ Flashing buttons do what.
Rehearse and practice for a good delivery

Soliciting and answering audience questions.

✧ After receiving a question, consider rephrasing the question in your own words before providing an answer.

✧ You can get difficult questions, it is OK to say “I don’t know” Even then, try to remain calm and project confidence. It is also OK to talk with the questioner after the Q&A session is over.
Final words...

If you are not having fun, you are doing it wrong!

You get better every time. (Practice makes perfect)

There is no such thing as a perfect talk. (Except this one, of course...)

The audience is on your side and wants you to do a great job.
Acknowledgements

https://colinpurrington.com/tips/poster-design
https://www.aspet.org/docs/default-source/uploadedfiles/Committees/mcd-accordion/eb2017-colloquium-effective-science-communication
https://nau.edu/undergraduate-research/poster-presentation-tips/
https://www.ccmr.cornell.edu/ “ScientificPosters.pdf”
http://www.ugradresearch.uconn.edu/ “Preparing-yourself-for-a-Poster-Presentation-Handout.pdf”
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http://www.lynda.com