Poster Presentations

Undergraduate Research Hub
First step

Scientific Content + Visual Information + Delivery

Your ideas, experiments, results, discussion, etc. Anything you want to communicate to an audience.

All of the visual aids you use to communicate information. In a paper, these are your figures; in a slide presentation, these are your slides; and in a poster presentation, this is your poster.

Your narrative that leads the presentation of your visual information. In a paper, your narrative is written on the page. In a slide and poster presentation, you deliver your narrative orally and with nonverbal communication (body language).
The Purpose of Poster Presentations

• Visually present a summary of your research
• Serve as a visual aid that supports your oral presentation
Balancing Act

- Detailed and complete AND concise
- Poster should stand on its own
- Poster shouldn’t be overwhelming with text
Design Tips

Plan
• Results
• Charts
• Bullet Points/Summaries
• Layout

Flow of sections
• Logical

Size
• Conferences dictate size
• 48” x 60” is typical
Design Tips

**Text**
- Get to the point
- Use bullet points
- Font
  - Use standard font
  - Headings: 32 pt
  - Text: 24 pt
  - Figure Details: 18 pt
- Balance with images
- Word Count
  - ~100 words / section
  - ~1000 words total
Design Tips

Images
• Photos/Figures
• Use to tell the story (e.g. models, charts)
• Use with purpose
• Balance with text

Color
• ~2-3 colors
• Use white space
Everything on your poster needs to be visible from 10 feet away!

Title: 80 pt
Headings: 32 pt
Text: 24 pt
Figure Details: 18 pt
Poster Sections

- Title, Authors, Logos
- Abstract
- Introduction/Background
- Hypothesis
- Methods
- Results
- Summary
- References
- Acknowledgements
<table>
<thead>
<tr>
<th><strong>Title</strong></th>
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| • Informative  
• < 2 lines |  |

<table>
<thead>
<tr>
<th><strong>Author(s)</strong></th>
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| • Presenter’s name  
• Anyone else who contributed significantly  
• PI |  |

<table>
<thead>
<tr>
<th><strong>Affiliations</strong></th>
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<th><strong>Logos</strong></th>
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| • University  
• Program  
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Abstract

- Can take up valuable space
- Consider leaving off if you need the space

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Lucius Aurelius, Tina Clark, Demetrio Gannicus, Lucrezia Galber
Universitas Scientia

Abstract

Pacific salmon hatcheries raise and release juvenile fish in order to supplement wild stocks and enhance commercial harvest. Over 100 salmon hatcheries in Hokkaido, Japan, raise and release a total of over one billion chinook salmon fry each year in order to supplement wild populations that have decreased steadily since the 1960s. Where sufficient prey are available to absorb the additional consumption demands for hatchery-produced chinook salmon is unknown. The increased abundance of juvenile chinook salmon hatchery production has also led concerns that the carrying capacity for juvenile chinook salmon has been reached or exceeded. Juvenile chinook salmon could potentially become food-limited at one or more stages in their life cycle in one or more geographic regions. Here we show that the localized standing stock biomass of key prey was not enough to sustain the high level of consumption required by chinook salmon to satisfy observed growth during the first five months at sea. The high percentage of prey biomass consumed and the fact that growth and consumption rates were higher for all chinook during periods of high survival indicate that Hokkaido chinook salmon are food limited during the juvenile stage. Competition for limited prey resources between hatchery and wild salmon could present potential risks to the health of wild stocks in particular. Our findings demonstrate that the potential benefits of hatchery programs should be weighed against risks to wild stocks and the greater ecosystem.

Full abstract, legible font.

Full abstract, tiny font.
Introduction/Background
- Brief
- Hook your audience

Hypothesis
- Brief
- Possibly use diagrams

Methods
- Details depend on audience, complexity, and importance
Results/Findings

- 3-4 main findings
- Group/organize logically
- Easily understood figures
  - Simple, clear labels
- Complex figures
  - Reconsider using
  - Separate caption
- You will present the findings, don’t need to explain via text
Summary

• Restate main takeaways

References

• Don’t forget!
• Font size can be a little smaller

Acknowledgments

• PI/Mentor
• Significant People
• Funding
• Program
Figure 2. ROCK inhibition during cardiac fibroblasts to prevent myofibroblast differentiation and preserve pro-fibrotic responses to stretch.

Cardiac fibroblasts were expanded by pre-culturing on plastic for passage (P) 1-3 with and without the Rho kinase (ROCK) inhibitor Y-27632 (10-20uM). The culturing conditions were: 1) Freshly isolated cardiac fibroblasts plated directly onto gels (black bars); 2) Cardiac fibroblasts pre-cultured on plastic for P1-3 with Y-27632 (grey bars) and 3) without Y-27632 (white bars) before plating on 4.5kPa PA gels. All fibroblasts were left on PA gels for 3 days without Y-27632 before analysis. Fibroblasts were subjected to 30-minute stretch whereafter mRNA for collagen 1a1 (coll1a1), collagen 1a2 (coll1a2), and smooth muscle actin (acta2) were determined by real-time PCR. mRNA was normalized to 18S ribosomal RNA.
ROCK inhibition during cardiac fibroblasts prevents myofibroblast differentiation and preserves pro-fibrotic responses to stretch.

Cardiac fibroblasts were expanded by pre-culturing on plastic for passage (P) 1-3 with and without the Rho kinase (ROCK) inhibitor Y-27632 (10-20uM). All fibroblasts were left on PA gels for 3 days without Y-27632.
O6-Benzylguanine Inhibits Tamoxifen Resistant Breast Cancer Cell Growth and Resensitizes Breast Cancer Cells to Anti-Estrogen Therapy

Joshua Smith1, George C Bobustuc2, Rafael Madero-Vishal3, Jimmie Colon4, Beth Isley5, Jonathan Tiek9, Kalukme S.

Research Institute of M.D. Anderson Cancer Center Orlando • Texas Tech University Health Sciences Center, Amarillo, TX

Abstract

Abstract text goes here.

Introduction

Recent advances in breast cancer research have identified key pathways involved in the growth of ERα-positive tumors by characterizing estrogen receptors. The drug of choice to target ERα is tamoxifen, which blocks the action of estrogen receptor-α (ERα) by competing with it for binding to estrogen-responsive elements (ERE) in the DNA. However, resistance to tamoxifen has been observed in breast cancer patients, and the development of novel therapeutic strategies is crucial.

Materials and Methods

Tamoxifen-resistant breast cancer cells were treated with different concentrations of O6-benzylguanine (O6-BG) and tamoxifen, and cell viability was measured using the MTT assay. The results showed that O6-BG significantly inhibited cell growth and sensitized the cells to tamoxifen treatment.

Results

O6-Benzylguanine Inhibits Tamoxifen Resistant Breast Cancer Cell Growth

Conclusion

The study demonstrates that O6-benzylguanine is a promising therapeutic strategy for the treatment of tamoxifen-resistant breast cancer.

Acknowledgements

This work was supported by grants from the National Institutes of Health.
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Lúcius Aurelius, Titus Crassus, Oenomaus Garnicus, Lucretia Glaber
Universitatis Scientia

Background
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Hypothesis
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Lucius Aurelius, Titus Crassus, Oenomaus Gannicus, Lucrecia Giaber
Universitatis Scientia

**Background**
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**Hypothesis**
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**Result**
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Summary
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Software

- PowerPoint/Google Slides
- Adobe Illustrator
- Open-Source Alternatives
  - OpenOffice
  - Inkscape and Gimp
  - For charts and diagrams try Gliffy or Lovely Charts
Scientific Content + Visual Information + Delivery

Your ideas, experiments, results, discussion, etc. Anything you want to communicate to an audience.

All of the visual aids you use to communicate information. In a paper, these are your figures; in a slide presentation, these are your slides; and in a poster presentation, this is your poster.

Your narrative that leads the presentation of your visual information. In a paper, your narrative is written on the page. In a slide and poster presentation, you deliver your narrative orally and with nonverbal communication (body language).
Presentation Tips

• Be present at your poster!
• Know your audience
• Point out visuals, but not text
• Consider supplementary information (e.g., a handout, tablet)
• Don’t block your poster
• Be professional
  • Dress, hygiene, body language
Always start a walkthrough by standing just to the left of your poster.
When you are about halfway through, completely cross to the other side.
Resources

Much of the material here from Matt Carter, *Designing Science Presentations* as well as *Research Guides: How to Create a Research Poster: Design Tips*

*Designing conference posters* — for advice & templates!

*Powerpoint poster templates for research poster presentations*

*Scientific Poster PowerPoint Templates*