

Poster Presentations

Forms of Communication

- Journal Articles
- Talks
- Posters

What distinguishes these forms of communication?

Forms of Communication

- Journal Articles (**Written; Peer reviewed**)
- Talks (**Oral & Visual; lecture style**)
- **Posters (Visual; interactive)**
 - Also available when you are not around

What distinguishes these forms of communication?

Audience

- Communicate the excitement of your research to an audience:
 - Other scientists in your field (prostate cancer researchers)
 - Scientists in general (researchers attending large national meetings; the symposium)
 - Lay public

Programs for Designing Posters

- PowerPoint (limited)
- LaTeX <<http://www.latex-project.org/>> (more flexible, handles math and chemical notation better but there is a learning curve)

Logistics

- Poster Size: 3 by 4 feet
- Distance: Audience is 5-7 feet away from poster but talking to you
 - Keep text to a minimum (less than 5 minutes to read)
 - Use diagrams, figures, flow charts, tables
- Poster elements
 - Font Size
 - Color
 - Layout
- Allow enough time for printing

STANDARD POSTER LAYOUT

Title Arial >96
Authors, Institution Arial 72

XXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX

Introduction or Background

Use figures to shorten text or include bulleted statements

HYPOTHESIS

Methods

FLOW CHART
Statistical analysis

RESULTS

Make sure your mentor approves all results that you plan to present.

Conclusion

bulleted statements

Acknowledgements

- SMALLER FONT
- Funding sources

Posters should be self-explanatory

POSTER FORMAT

Title Arial >96
Name, Institution Arial 72

XXXXXXXXXXXX

XXXXXXXXXXXX

XXXXXXXXXXXX

XXXXXXXXXXXX

MUST BE INTERESTING

Enhancements: Lines, blocks, background color, text color

Dos and don'ts: <http://colinpurrington.com/tips/academic/posterdesign>

Arrows pointing to text: Arial 20 for abstract, Arial 32-36 for text, Headers larger and set off by font type and colors.

Cholesterol Homeostasis and Adipocytes

Danielle Skorupa, Jennifer Risser, John David & Dr. David C. Usher
University of Delaware, Department of Biological Sciences, Newark, DE 19716

Abstract

Cholesterol homeostasis is a complex process involving multiple pathways and regulatory mechanisms. In adipocytes, cholesterol levels are tightly regulated to maintain membrane fluidity and cellular function. This study investigates the role of adipocytes in maintaining cholesterol homeostasis under various conditions.

Methods

Adipocytes were cultured in the presence of various cholesterol precursors and inhibitors. Lipid levels were measured using gas chromatography-mass spectrometry (GC-MS). Gene expression was analyzed using quantitative real-time PCR (qPCR).

Results

Figure 1. Production of cholesterol and its precursors in adipocytes. Adipocytes treated with cholesterol precursors showed a significant increase in cholesterol levels compared to control. The addition of inhibitors blocked this increase, indicating their role in regulating cholesterol synthesis.

Conclusions

Adipocytes play a crucial role in maintaining cholesterol homeostasis. The study demonstrates that adipocytes can synthesize cholesterol and regulate its levels through various mechanisms, including the use of precursors and inhibitors.

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Good

- Too much text
- Unreadable graphic
- Header font too small
- Hypothesis buried
- Methods too detailed
- Poor use of color

Influence of Cholesterol on Fatty Acid Synthesis During Adipocyte Differentiation

Amanda Peters, John David & Dr. David C. Usher
University of Delaware, Department of Biological Sciences, Newark, DE 19716

Abstract

Cholesterol and fatty acid synthesis are closely linked processes in adipocytes. Cholesterol is a precursor for fatty acid synthesis, and both are essential for the formation of lipid droplets during adipocyte differentiation. This study explores the influence of cholesterol on fatty acid synthesis during this process.

Hypothesis

Cholesterol levels will positively influence fatty acid synthesis and lipid droplet formation during adipocyte differentiation.

Methods

Adipocytes were differentiated in the presence of various cholesterol levels. Fatty acid synthesis was measured using radiolabeled substrates. Lipid droplet formation was visualized using oil-soluble dyes.

Results

Figure 1. Influence of cholesterol on fatty acid synthesis. Adipocytes treated with higher cholesterol levels showed a significant increase in fatty acid synthesis and lipid droplet formation compared to control.

Glycosylation and Phosphorylation Induce Opposing Structural Conformations in Tau's Proline-Rich Domain

Michael A. Brister, Agata A. Belska, and Neal J. Zondlo
Department of Chemistry and Biochemistry, University of Delaware

Abstract

Tau protein is a microtubule-associated protein that plays a critical role in neuronal function. The proline-rich domain of tau is highly flexible and can adopt different structural conformations depending on post-translational modifications. This study investigates the effects of glycosylation and phosphorylation on the structural conformations of tau's proline-rich domain.

Methods

Protein structure was determined using circular dichroism (CD) and NMR spectroscopy. The effects of glycosylation and phosphorylation on protein structure were analyzed using these techniques.

Results

Figure 1. Structural characterization of tau's proline-rich domain. Glycosylation and phosphorylation induce opposing structural conformations in the proline-rich domain, as evidenced by changes in CD and NMR spectra.

Conclusions

Glycosylation and phosphorylation play a crucial role in regulating the structural conformations of tau's proline-rich domain. These modifications induce opposing structural conformations, which may have implications for tau's function in neuronal cells.

INTERACTION

- Layout and title attract people to your poster
- Involve the person viewing your poster by asking about his/her background or interest
- Prepare a 30-60 second summary of your research.
- Ask if the person has any questions. Engage the person in a conversation
- Be very familiar with the background of your project. It will help with the interaction.
- Eye contact is important.
- Exchange contact information (business cards)

ASBMB Undergraduate Poster Competition Judging Rubric 2007

Criteria	Low				High			
	1	2	3	4	5			
Hypothesis	<ul style="list-style-type: none"> - Missing hypothesis or hypothesis poorly presented - No background - No project goal stated 		<ul style="list-style-type: none"> - Questionable hypothesis not well presented - Limited background - Project goal not clear 		<ul style="list-style-type: none"> - Logical clearly presented hypothesis - Relevant background - Project goal stated including relevance of their work 			
Methods	<ul style="list-style-type: none"> - Methods lacking - Lack of controls - Poor discussion of controls 		<ul style="list-style-type: none"> - No or little comment on why methods chosen - Adequate discussion of controls - Some significant controls or comparisons missing 		<ul style="list-style-type: none"> - Solid explanation of why methods picked - Clear discussion of controls - All relevant controls presented 			
Results	<ul style="list-style-type: none"> - Results not yet available or reproducible - Data presentation missing 		<ul style="list-style-type: none"> - Adequate amounts of good data - Data address the hypothesis - Data presentation not clear 		<ul style="list-style-type: none"> - Substantial amounts of high quality data - All data presented address the hypothesis - Data presentation was clear, concise, and thorough 			

Conclusions / Future Work	<ul style="list-style-type: none"> - Conclusions not presented - Conclusions do not link to hypothesis - Conclusions do not link to background presented in introduction 	<ul style="list-style-type: none"> - Reasonable conclusion presented - Conclusions not compared to hypothesis - Relevance of conclusions not discussed 	<ul style="list-style-type: none"> - Reasonable conclusions given with strong supporting evidence - Conclusions compared to hypothesis - Conclusions relate to background presented in introduction
Overall Presentation by Student	<ul style="list-style-type: none"> - Did not demonstrate knowledge of project - Frequently reads from poster - Does not use visual aids - Is often confusing 	<ul style="list-style-type: none"> - Demonstrates some knowledge of project. - Reads from poster at some times - Overall presentation is inconsistent 	<ul style="list-style-type: none"> - Demonstrates strong knowledge of project - Speaks clearly, naturally, with enthusiasm. - Uses visual aids to enhance presentation
Answering Question	<ul style="list-style-type: none"> - Does not answer basic questions - Avoids answering questions 	<ul style="list-style-type: none"> - Can answer basic questions. - Has difficulty answering difficult questions 	<ul style="list-style-type: none"> - Answers difficult questions in a clear concise manner
Poster Board	<ul style="list-style-type: none"> - Missing several expected components - Poor layout - Text is hard to read, lack of proofreading evident - Figures and tables poorly done 	<ul style="list-style-type: none"> - Most expected components present - Layout inconsistent. - Text relatively clear, occasional errors - Figures and tables not always related to text - Figures and tables not consistently constructed 	<ul style="list-style-type: none"> - All expected components are present - Layout easy to follow. - Text is clear and virtually free of errors - Figures and tables are consistently constructed and presented