Poster Presentation Guidelines
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Helpful Hints | Layout Tips | Presentation Goals

These are not extensive step by step instructions on how to prepare or present a poster, but a few helpful hints that should make things easier.

Helpful Hints

Use the same coloured poster board for all your posters, as you can re-use some of these panels for newer posters. Poster boards can be purchased from the graphics centre in your department, from a business store or from a convenience store. Also, try to bring your own push-pins and/or velcro to put up your poster at meetings. Cut the panels to 8x11 inches, as it these are easier to carry. Be courteous and mind the set-up, presentation and removal times for your poster. Audio-visual equipment may be provided at some meetings to help with visual displays at posters, but will cost money.

Layout Tips

The layout of a poster should include a poster title, an abstract, an introduction, methods, figures, summary and acknowledgements. Try to make the FONT (>28 point) of your text and your FIGURES as large as possible on each of your panels.

Poster Title

The *POSTER TITLE* should include the title, names of authors and institutional affiliations.

Title of Presentation

Author 1[f], Author 2*, Author 3[¦]

[f]1st Affiliation, *2nd Affiliation, [¦]3rd Affiliation

Abstract

The *ABSTRACT* is a summary of your work (approximately 300 words), and should include some *background information*, *the objectives*, the methods used, ***the results*** and **the conclusions** of your study. Do not abbreviate any terms here.

Like neuronal synaptic vesicles, intracellular GLUT4-containing vesicles must dock and fuse with the plasma membrane, thereby facilitating insulin-regulated glucose uptake into muscle and fat cells. *GLUT4 colocalizes in part with the vesicle-SNAREs VAMP2 and VAMP3.* In this study, we used a single cell fluorescence-based assay *to*

compare the functional involvement of VAMP2 and VAMP3 in GLUT4 translocation. Transient transfection of proteolytically active tetanus toxin light chain ***cleaved both VAMP2 and VAMP3 proteins in L6 myoblasts stably expressing exofacially myc-tagged GLUT4 protein, and inhibited insulin-stimulated GLUT4 translocation. Tetanus toxin also caused accumulation of the remaining C-terminal VAMP2 and VAMP3 portions in Golgi elements.*** This behaviour was exclusive to these proteins, as ***the localization of intracellular GLUT4myc was not affected by the toxin.*** Upon co-transfection of tetanus toxin with individual vesicle-SNARE constructs, ***only toxin-resistant VAMP2 rescued the inhibition of insulin-dependent GLUT4 translocation by tetanus toxin.*** Moreover, ***insulin caused a cortical actin filament reorganization where GLUT4 and VAMP2, but not VAMP3, were clustered.*** **We propose that VAMP2 is a resident protein of the insulin-sensitive GLUT4 compartment, and that the integrity of this protein is required for GLUT4-vesicle incorporation into the cell surface in response to insulin.**

Introduction

The **INTRODUCTION**, the *OBJECTIVES* and the APPROACH should be written concisely in point form (and ideally on separate panels). The INTRODUCTION (ie. the studies that led you to explore your questions) should be referenced, and may include a schematic diagram of the model under investigation. The OBJECTIVES should highlight the questions of the study, and the APPROACH should detail the methods used to answer them. Do not give away your results here.

- **Insulin-regulated glucose uptake into muscle and fat cells is dependent on SNARE proteins for the incorporation of intracellular GLUT4-containing vesicles at the cell surface. GLUT4 vesicles are thought to contain the vesicle-SNAREs VAMP2 and VAMP3. VAMPs can be cleaved by various *Clostridial* toxins, including tetanus toxin. (REF #1)**
- **Also, GLUT4 is recruited into a reorganized actin mesh in L6 myotubes exposed to insulin. This remodelling is required for the productive exposure of GLUT4 at the cell surface since cytoskeleton-disrupting drugs block actin remodelling, and both insulin-stimulated GLUT4 translocation and glucose transport. (REF #2)**
- In this study, we *examined the colocalization of GLUT4 with VAMP2 and VAMP3* by fluorescence microscopy, as well as *VAMP composition of immunoisolated GLUT4 vesicles*.
- We also used fluorescence microscopy *to determine if VAMPs facilitate GLUT4 externalization in intact L6 muscle cells in culture.* By transient transfection of tetanus toxin alone, or in combination with wild type or toxin-resistant VAMP cDNA constructs, we *compared the functional involvement of VAMP2 and VAMP3 in GLUT4 translocation in L6 myoblasts.*
- Further, we *examined the insulin-induced actin mesh structure for VAMP2 and VAMP3 colocalization* by confocal microscopy analysis.

Methods

The *METHODS* should briefly outline only those not yet referenced. For all other methods used in your study, include a reference. If a method was modified, explain.

A slightly modified GLUT4myc translocation assay was used as described **(REF** *Wang et al.***).**

Figures

Each *FIGURE* should be numbered, and include a FIGURE TITLE and a *FIGURE LEGEND* on the same panel. The FIGURE TITLE should explain the results in the FIGURE, and the FIGURE LEGEND should provide a short description of the experiment. Label the figures clearly, and use a consistent format throughout the poster.

Figure 5. Tetanus toxin prevents exit of VAMP2 or VAMP3 GFP chimeras out of the Golgi elements in L6-GLUT4myc myoblasts. *L6-GLUT4myc myoblasts were transfected with 0.6mg of V2-GFP cDNA in the absence (A) or presence (B,C) of 0.9 mg of TeTx, and were subsequently left untreated (A,B) or treated with (C) Brefeldin A. All cells were processed for indirect immunofluorescence using anti-giantin IgG as described in Materials and Methods. Shown is the green fluorescence of V2-GFP (left) or the giantin staining (right) in the same field of view without TeTx (top panels), with TeTx (middle panels) or with both TeTx and Brefeldin A treatment (bottom panels). Scale bar, 10 mm.*

Summary

The *SUMMARY* should highlight your interpretation of the results, and may include a diagram. The *CONCLUSIONS* should detail the key findings of your study (ie. denote the take-home message). It is a good idea to discuss the significance of your study, and how it has advanced the scientific knowledge of your field.

- **Both VAMP2 and VAMP3 partially colocalized with intracellular GLUT4, and are found on immunoisolated GLUT4 vesicles.**
- **Tetanus toxin light chain inhibited insulin-stimulated GLUT4 externalization.**
- **Tetanus toxin cleaved and caused a marked redistribution of wild type GFP fusion proteins of VAMP2 and VAMP3. The cleaved C-terminal portions of these wild type VAMPs colocalized with the Golgi elements.**
- **Intracellular GLUT4 localization and transferrin-rhodamine endocytosis (*not shown*) were unaffected by tetanus toxin.**
- **Toxin-resistant mutant VAMP2 restored the toxin-inhibited, insulin-stimulated GLUT4 appearance at the cell surface.**
- **VAMP2, but not VAMP3, was accompanied GLUT4 into the insulin-induced cortical actin mesh.**
- ***Although both vesicle-SNAREs VAMP2 and VAMP3 are found on intracellular GLUT4 vesicles, VAMP2 mediates GLUT4 translocation in L6 myoblasts. As well VAMP2, but not VAMP3, is found along with GLUT4 in the insulin-induced actin mesh structure required for productive GLUT4 externalization in L6 muscle cells. Therefore, the integrity of VAMP2, likely a resident of the***

insulin-sensitive GLUT4 compartment, is important for GLUT4 vesicle incorporation into the muscle cells surface in response to insulin.

Acknowledgements

The *ACKNOWLEDGEMENTS* (optional) references sources of funding, materials and/or advice.

NOTE: The *ABSTRACT* and the *METHODS* can be made into handouts if desired.

Presentation Goals

Before presenting your work, whether it is at a departmental/institutional poster competition or at a meeting, consider your audience. Don't be afraid to ask them how much information they know about your field of study. Once you have established their level of familiarity with the subject, you can mold your presentation to suit the listeners.

Follow the format of your poster, detailing only key points and concepts in the most simplistic manner possible. Remember that too much scientific jargon becomes confusing. Explain the terms and be clear and concise. Finally, remember to present with enthusiasm!

1. Be sure to exchange introductions and ask the listeners how much they know about your subject. Then begin with the POSTER TITLE, which will lead nicely into the INTRODUCTION.

2. The INTRODUCTION should be just that, an introduction, to the terms and what was known when you began your work. If you have a diagram, provide a broad overview of the model you are exploring in this work. The background information you are giving should help you explain your OBJECTIVES, which are essentially the questions that you pursued. In fact, the OBJECTIVES can be stated as questions, thus helping orient the listeners as to the format of your study.

3. Go through the FIGURES carefully and slowly. Although the FIGURES should be arranged so that you present them sequentially, this need not always be the case. Explain the FIGURES so that they answer a question posed during the course of the study. This may not be the central question, but it helps the listeners understand the motive for that particular experiment. Remember to point to each FIGURE as you are speaking about it.

4. Finally, you are nearing the end of your presentation. Use the SUMMARY and the CONCLUSIONS to detail the key findings of your study. Extend these results to fit a larger concept or model in your field. It is always a good idea to explain what you plan to do next to further your understanding about this new concept or model. Last, ask if there are any questions or ideas that need clarification.

The poster presentation is all over, and now you can finally relax and enjoy the fruits of your labour!