Convey your Science with PowerPoint

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YOUR CONFERENCE PRESENTATION

HOW YOU PLANNED IT:

INTRODUCE YOURSELF 

DESCRIBE OUTLINE OF TALK

MOTIVATION

RESULTS

APPLAUSE

ENGAGING Q&A

METHODOLOGY AND EXPERIMENT DESIGN

CONCLUSIONS

15 MINUTES

HOW IT GOES:

PREVIOUS SPEAKER RUNS LATE AND EATS INTO YOUR TIME.

TECHNICAL DIFFICULTIES CONNECTING YOUR LAPTOP.

FORGET INTRODUCING YOURSELF.

ANNOYING AUDIENCE MEMBER Interrupts WITH SELF-AGGRANDIZING QUESTION.

REALIZE YOU ONLY HAVE 3 MINUTES LEFT.

POWER THROUGH THE REST OF YOUR 30 SLIDES.

15 MINUTES

SPEND WAY TOO MUCH TIME DESCRIBING YOUR OUTLINE.

MOTIVATION

AWKWARD SILENCE Q&A.
“PowerPoint doesn’t kill presentations, people do!”

PowerPoint was not created as a ‘crutch’ for presenters but as a tool to ‘enhance’ their presentations and enable them to communicate more ‘effectively’
Main goal of your presentation should be to get your audience to

• pay attention to,

• understand,

• (be able to) act upon, on your ‘Message’
• Planning a presentation
• Structuring a presentation
• Handling audience
Figure out the 5 W’s before you start preparing the slides

• Why – your purpose
• Who – the audience
• What – content
• When – time constraints
• Where – space constraints
Structuring your Presentation

Attention-getter

↓

Need

↓

Task/ Main Message

↓

Preview of your upcoming slides/results

Point 1

↓

Subpoint 1 2 3 ..

Point 2

↓

Subpoint 1 2 3 ..

Point 3

↓

Subpoint 1 2 3 ..

Conclusions

↓

Closing remarks

INTRO SLIDES

CONTENT SLIDES

FINAL SLIDES

Courtesy of Principiae
Types of presentations

Variable: Time
Constant: Content

5 minutes
(e.g. Wellcome Trust Fellowship interview)  
≥ 20 minutes
(e.g. Departmental talk, Conference, Thesis defense)

Introduce yourself, Background
  ↓
Your message
  ↓
Strong call to act upon your message
  ↓
3 slides

Intro slides
  ↓
Content slides
  ↓
Final slides
  ↓
12-15 slides

Tell a story!
Don’ts of Intro slide(s)
Conditions that compromise protein folding in the endoplasmic reticulum trigger the unfolded protein response (UPR), which either restores proper protein folding or results in cellular demise through apoptosis. In this study, we found that, in response to ER stress in vivo and in vitro, PKCδ translocates to the ER where it binds to the tyrosine kinase Abl. Tyrosine phosphorylation and kinase activity of PKCδ are required for PKCδ binding to Abl in the ER. Moreover, we found that inhibition of PKCδ by the PKCδ-specific peptide inhibitor δV1-1 or by silencing of PKCδ reduces ER-stress-induced JNK activation and inhibits ER-stress-mediated apoptosis. Furthermore, the inhibitor of PKCδ kinase activity rottlerin blocks the translocation of the PKCδ-Abl complex from the ER to the mitochondria and confers protection against apoptosis. Thus, PKCδ communicates ER stress to the mitochondria by binding to ER-localized Abl. The PKCδ-Abl complex then translocates to the mitochondria, communicating ER stress to this organelle, thereby, triggering apoptosis.
Conditions that compromise protein folding in the endoplasmic reticulum trigger the unfolded protein response (UPR), which either restores proper protein folding or results in cellular demise through apoptosis. In this study, we found that, in response to ER stress in vivo and in vitro, PKCδ translocates to the ER where it binds to the tyrosine kinase Abl. Tyrosine phosphorylation and kinase activity of PKCδ are required for PKCδ binding to Abl in the ER. Moreover, we found that inhibition of PKCδ by the PKCδ-specific peptide inhibitor δV1-1 or by silencing of PKCδ reduces ER-stress-induced JNK activation and inhibits ER-stress-mediated apoptosis. Furthermore, the inhibitor of PKCδ kinase activity rottlerin blocks the translocation of the PKCδ-Abl complex from the ER to the mitochondria and confers protection against apoptosis. Thus, PKCδ communicates ER stress to the mitochondria by binding to ER-localized Abl. The PKCδ-Abl complex then translocates to the mitochondria, communicating ER stress to this organelle, thereby, triggering apoptosis.

• Does the PKCδ –Abl complex associate with and activate JNK?

• Is this also observed in human neuroblastoma cells?

• What happens to these interactions in a PD system?
PKCδ – Abl complex communicates ER stress to the mitochondria and activates JNK

- Conditions that compromise protein folding in the ER triggers the unfolded protein response (UPR).
- PKCδ translocates to the ER and gets phosphorylated following which it binds to the tyrosine kinase Abl.
- Inhibition of PKCδ reduces ER-stress-induced JNK activation and inhibits ER-stress-mediated apoptosis.
- Inhibition of PKCδ kinase activity blocks the translocation of the PKCδ-Abl complex from the ER to the mitochondria and confers protection against apoptosis.

Xi et al., 2007 (Journal of Cell Science)
Research questions

- Does the PKCδ –Abl complex associate with and activate JNK?
- Is this also observed in human neuroblastoma cells?
- What happens to these interactions in a Parkinson’s Disease (PD) system?

Xi et al., 2007 (Journal of Cell Science)
Don’ts of Result/Data slide(s)
Results

The cell image shows X contacts indicating XYZ. Red indicates focal contacts, green is actin staining and blue is DAPI.

The bar graph indicates that Y is affecting the mitochondrial superoxide production. The experiment was performed as...

The table summarizes the data. We obtained this data by....

<table>
<thead>
<tr>
<th>Species</th>
<th>Concentration/µpm</th>
</tr>
</thead>
<tbody>
<tr>
<td>As(II)</td>
<td>5</td>
</tr>
<tr>
<td>As(V)</td>
<td>11</td>
</tr>
<tr>
<td>MMA(V)</td>
<td>0</td>
</tr>
<tr>
<td>DMA(V)</td>
<td>0</td>
</tr>
<tr>
<td>AsB</td>
<td>0</td>
</tr>
</tbody>
</table>
**Figure 1**

A. 35 µM 6-OHDA

<table>
<thead>
<tr>
<th>MW</th>
<th>Endogenous SGK1</th>
<th>Endogenous phospho-S GK1 (ser80)</th>
<th>α-Tubulin</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>![Image]</td>
<td>![Image]</td>
<td>![Image]</td>
</tr>
<tr>
<td>72</td>
<td>![Image]</td>
<td>![Image]</td>
<td>![Image]</td>
</tr>
</tbody>
</table>

B. 35 µM 6-OHDA

<table>
<thead>
<tr>
<th>MW</th>
<th>Bp</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>![Image]</td>
</tr>
<tr>
<td>72</td>
<td>![Image]</td>
</tr>
</tbody>
</table>

C. 35 µM 6-OHDA

D. 35 µM 6-OHDA

E. 35 µM 6-OHDA

F. Untreated cells, Akt inhibitor MK-2206

<table>
<thead>
<tr>
<th>MW</th>
<th>phospho-Akt</th>
<th>α-Tubulin</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>![Image]</td>
<td>![Image]</td>
</tr>
<tr>
<td>72</td>
<td>![Image]</td>
<td>![Image]</td>
</tr>
</tbody>
</table>
• Use title of the slides to convey the key message
  • Do not over load the slide with data (no raw data, unless absolutely required)
  • Label figures/graphs but avoid long legends
Don’ts of a Conclusion slide
Conclusions

• Conclusion slide should be short and to the point
• Give a strong message and persuade the audience to take action
General Do’s and Don’ts

• **Plan and design slides well in advance**

• Keep them short and simple

• Less text, more visuals

• Chek for speeling erors

• Don’t read from the slides

• Use title of the slides to convey the key message

• Don’t end your presentation abruptly

• **Time your presentation- Practise, Practise, Practise!**
How to handle your Audience

Your audience is the first and the last reason why you are presenting
Handling the Audience

• Prepare well, rehearse several times

• Practice in front of your peers- Mock presentation

• Prepare for questions audience is likely to ask

• Take time to think about the answer to an audience question

• Answer questions briefly

• Be polite and stay calm
Useful Resources

- Garr Reynolds’ blog, [Presentation Zen](#)

- David Paradi, author of “The Visual Slide Revolution: Transforming Overloaded Text Slides into Persuasive Presentations” maintains a video podcast series called “Think Outside the Slide”

- Book “[Trees, maps and Theorems](#)” by Jean-Luc Doumont. Watch his [YouTube videos](#)

- [Brainshark](#)- provides technical help to prepare PowerPoint presentations more efficiently and creatively

- [Scitable by Nature](#)

- Life After Death by PowerPoint 2012 by Don McMillan. Watch the video [here](#)
Convey your Science with Posters

Your research story

You
Why a poster might be better than a talk

Personal interaction

Can be viewed in your absence

More engagement

Trains you for Public Speaking

Purrington CB, Designing conference posters
General Poster Rules

- **FONT:**
  - Title: 60-85pt
  - Authors: 56pt
  - Sub-headings: 24-36 pt
  - Body text: 20-24 pt
  - Captions/Figure Legends: 18pt

- Use sans serif fonts

- **DO NOT USE ALL UPPER CASE TYPE IN YOUR POSTERS**

- Use the **bold face** or *italics* or combinations to emphasize words and phrases.

- Avoid excessive text (Poster ideally should have roughly 20% text, 40% figures, 40% space)

*Source: Makesigns*
General Poster Rules

- Text and figures should be legible from around 5-7 feet away
- Leave breathing space around your text
- Choose your background colour carefully
- Do not use a different font type to highlight important points
- Label all your figures, photos, and graphs

Source: Makesigns
A title that best describes your conclusion or question in non-technical terms will attract more viewers to your poster.

Your Name, Collaborator (?) and Faculty Mentor
Department of XYZ, Kashmir University

Background & Hypothesis
Experimental methods

Results

Conclusions

References

Acknowledgements
Good luck with your presentations!