Scientific Presentations 101:
The Art of Great Talks

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Overview

- Tips for scientific oral presentations
- Using Powerpoint

We may not be experts at public speaking, but we are all experts at listening to talks

-Effective presentation style

-Appropriate background information

-Clear statement of hypothesis

-Clear data and methodology slides with obvious “take home message”

-Effective summary and conclusion

Preparation is key

- Who is the audience?
- How much time do you have?
    - For a 1-hour presentation:
        - 15 minutes: Introduction
        - 25 minutes: Data
        - 5 minutes: Summary
    - For a 10 minute presentation:
        - 3 minutes: Introduction
        - 5 minutes: Data
        - 2 minutes: Summary
    - Always rehearse to plan your time!
- Prepare…then relax!

Structure

- Use a title that is informative
- Set the stage
  - General > focused
  - Why is this important?
- Tell a story
  - A logical unfolding of information
  - An imprecise speaker is an unfocused thinker
- Summarize
  - It might be the only thing they remember later!

Renal Cell Carcinoma

- Highly resistant to both cytotoxic chemotherapy and radiation
- Metastatic disease: 5-year survival of <20%
- Cytokine-based therapies: IL-2 and IFN-alpha
  - Limited efficacy
  - Toxicity profiles often intolerable

Delivery

- Articulation and eye contact are most important
- Enthusiasm prevents monotony
- Don’t read your slides!
- When in trouble, slow down
- Body language counts: change positions but don’t distract
- Use pointer judiciously!

Questions

- Control the crowd!
- Make it clear to audience that they should not interrupt
- Don’t just repeat the question, rephrase it
- Acknowledge good questions
- Keep answers brief and to the point

Powerpoint: Biggest errors

- Poor choice of font and size
- Poor choice of colors for background and text
- Too much data
- Too many lines of text

Powerpoint: What font to use

Use a Sans Serif font:

This font is Arial.

This font is Comic Sans.

Serif fonts take longer to read…

This font is Times New Roman.

This font is Courier.

Serif font, no shading

Summary

- CAD has a genetic basis, the mechanisms of which still need much investigation
- We believe that through candidate gene examination we can identify which genes associate with acute vs. chronic CAD.
- Use of this approach can be applied to "screen" novel gene discoveries any "new CAD genes"

San serif font, no shading

Summary

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- We believe that through candidate gene examination we can identify which genes associate with acute vs. chronic CAD.
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Sans serif font, with shading

Summary

- CAD has a genetic basis, the mechanisms of which still need much investigation
- We believe that through candidate gene examination we can identify which genes associate with acute vs. chronic CAD.
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Type size

Type size should be 18 points or larger:

18 point

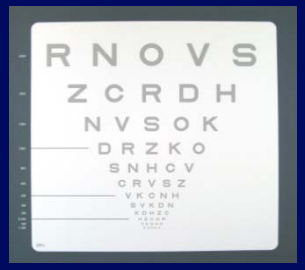
20 point

24 point

28 point

36 point

* References can be in 14 point font



Correlations with Vision

	1.25% chart vs. OCT %	1.25% chart vs. GDx%	VA 3.2m vs. OCT%	VA 3.2m vs. GDx%
RNFL % ↓ with <u>1 line difference</u> compared to controls	*0.18* *p*<0.001	0.16 *p*<0.001	0.31 p<0.001	0.17 *p*=0.09
Quadrant with the greatest percent difference	Temporal	Superior	Temporal	Inferior

- GEE models, accounting for age and within patient, inter eye correlations
- P<0.05 significant

AVOID USING ALL CAPITAL LETTERS BECAUSE IT'S MUCH HARDER TO READ!

Color

- Dark letters against a light background work
- Best for smaller rooms and for teaching.

Color

Light letters against a dark background also work.

Many experts feel that a dark blue or black background works best for talks in a large room.

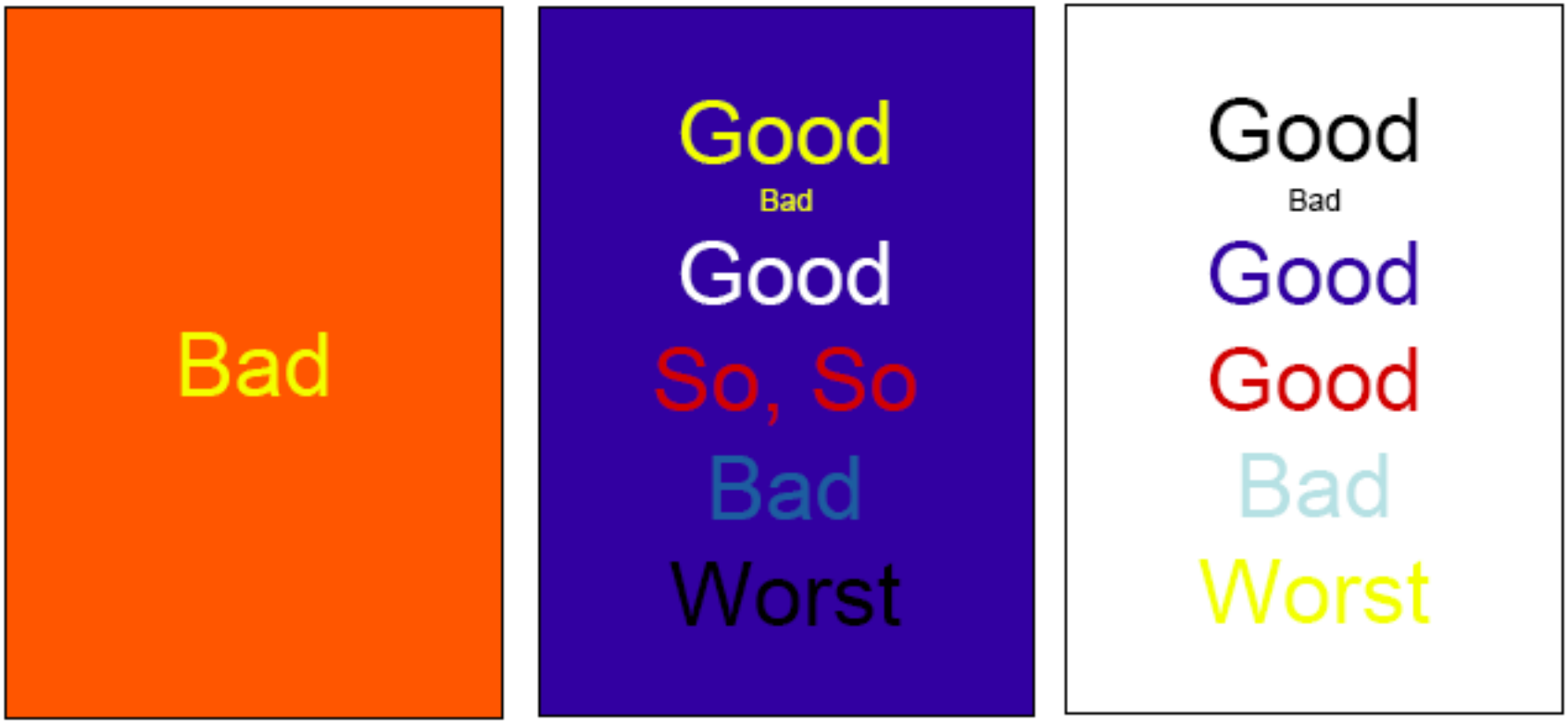
Color

Avoid red-green combinations because a large fraction of the human population is red-green colorblind.

Lots of people can't read this –
and even if they could, it makes your eyes hurt.

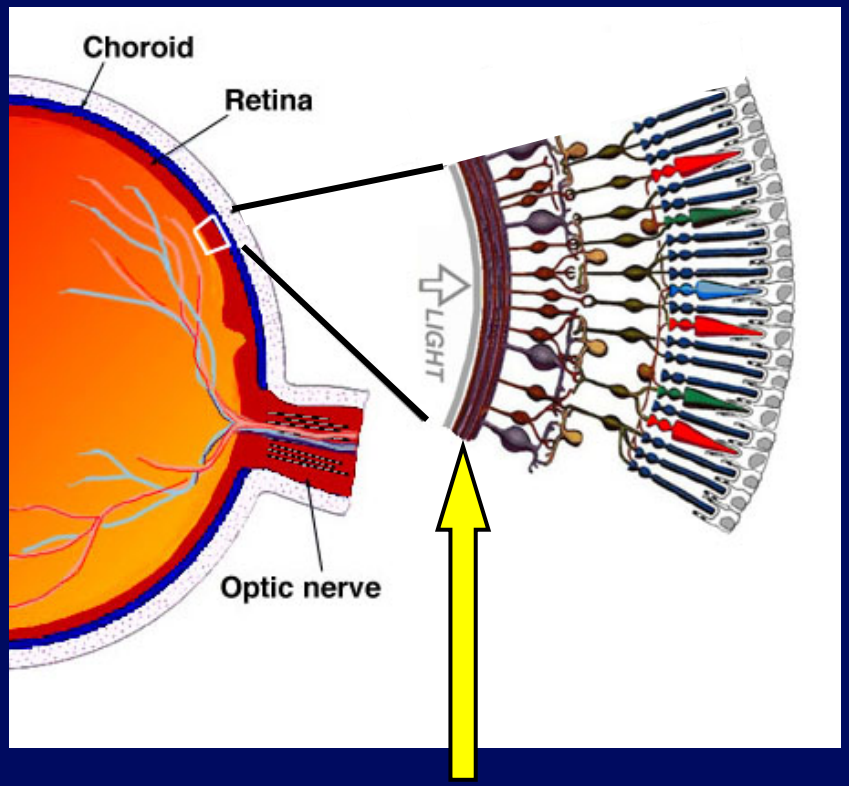
Antidotes for PowerPoint Poisoning

Choose Colors Carefully



Slide backgrounds, font sizes and colors

Retinal Nerve Fibre Layer (RNFL) Imaging



RNFL = ganglion cell axons

- Noninvasive, correlates with histology (±5 µm)
- Near-infrared light (820 nm)
- Quantitative, reproducible, fast

Layout

- Keep the layout and style as consistent as possible.
- Every slide should have a heading.
- Try to limit bullets to no more than 7 lines

The reason for limiting text blocks to two lines is that when the text block goes on and on forever, people in the audience are going to have to make a huge effort to read the text, which will preclude them from paying attention to what you are saying. Every time you lose their focus, your presentation suffers!

Polymorphisms in Angiogenesis-Associated Genes and Response to Sorafenib in RCC

- Candidate genes:
  - VHL, HIF-1alpha
  - VEGF-A, VEGF-C
  - VEGFR-1, VEGFR-2, VEGFR-3
  - PDGF-B, PDGFR-B
  - EGF, EGFR
  - c-Raf, b-Raf
- Study: genetic association study (case-control)
- Goal: to investigate predictive value of genetic variants in the setting of sorafenib therapy

Animation

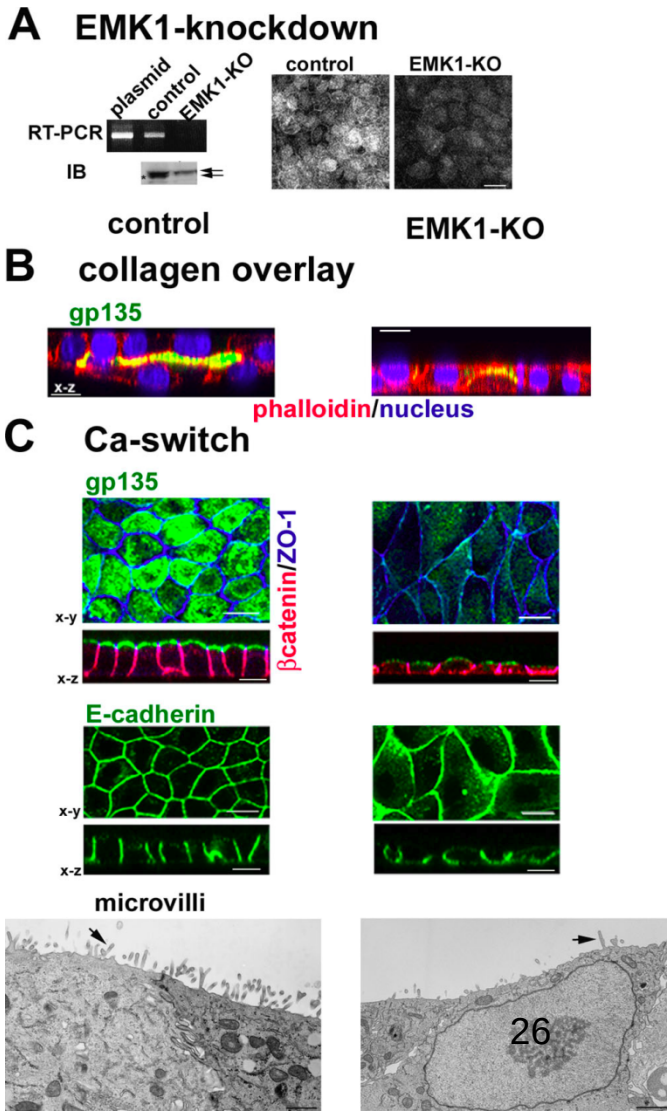
It is often effective to “unveil”a list point by point.

Do not overuse animations and do NOT have screeching sounds as text enters!

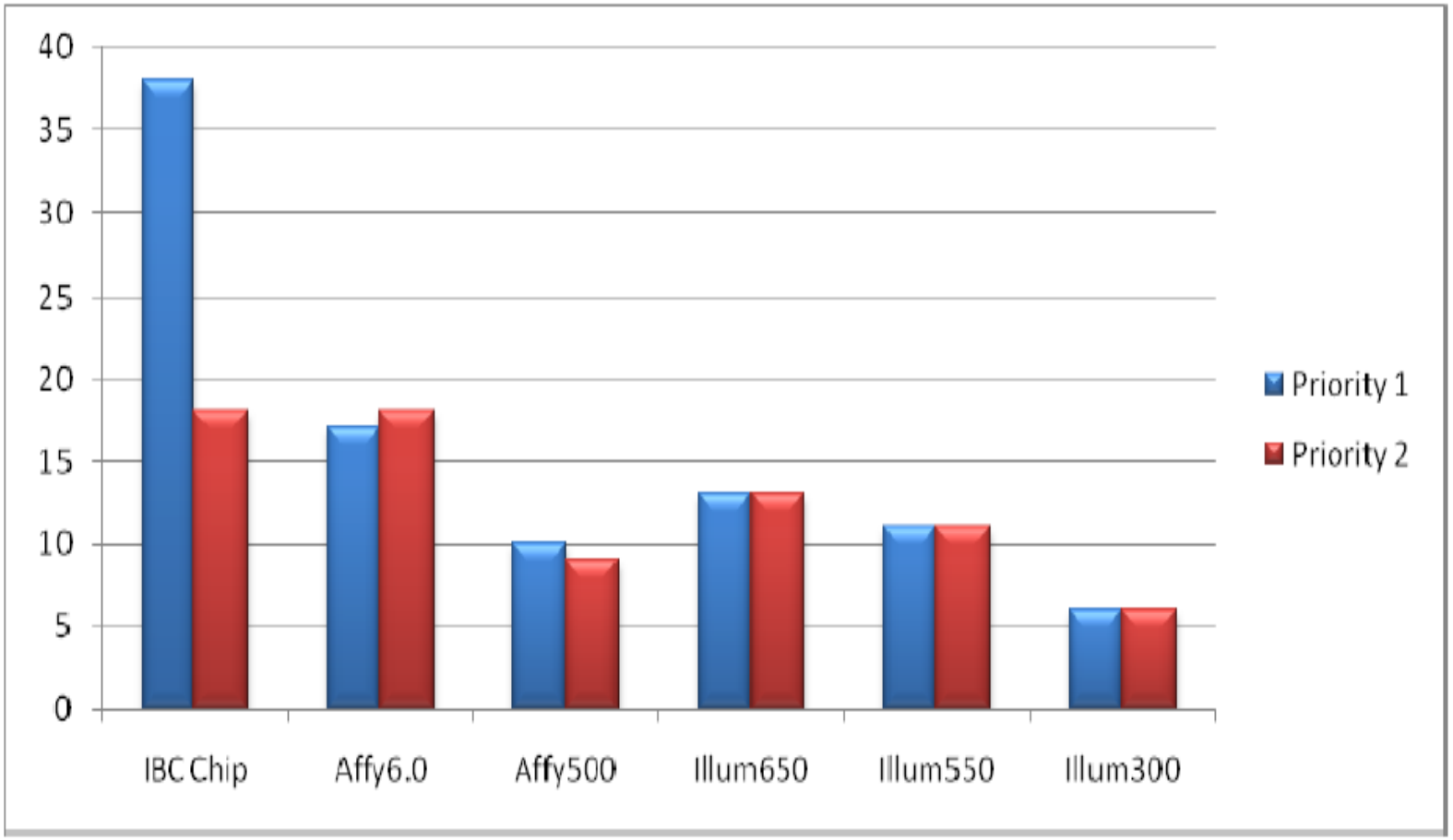
Figures

Do not cram too much into a slide.

Try your best to include a simple image on every slide.



Average number of SNPs per gene



Presentation Hints

PowerPoint Presentations

- PowerPoint Poisoning:

Dilbert, August 16, 2000

Try not to use too many slides.
Often, less can be more effective!

Basic Outline – 10 min pres.

- Background – 3-4 slides
  - e.g. Aims, Hypothesis
- Methods – 4-5 slides
  - e.g. Study Design, Data, Statistical Analysis
- Results – 3-4 slides
- Summary – 1-2 slides
- Limitations/Future Directions – 1-2 slides
- Acknowledgements – 1 slide