Designing an Effective Poster Presentation

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Know Your Audience

• Who will be viewing your poster?
  – Classmates
  – Professors
  – General public

• What is the purpose of this presentation?
  – Arguing a certain course of action
  – Defining a new problem
  – Improving a type of technique/methodology
Know Your Audience

• In less than 10 seconds, a viewer decides whether to approach your poster or leave
  – Poster needs to be understandable at a distance
  – Use a statement, photograph, or diagram as a focal point to attract attention
Know Your Audience

• In the next 30-60 seconds, the viewer decides if your poster is worthy of further exploration
  – Clear flow of information from introduction to conclusion
  – Focus on major findings
  – Text should be concise enough to be read in under 10 minutes
Organize Information

• Title, Author(s) and affiliation(s)
• Abstract: include only if required by the conference
• Introduction: a brief but important overview to secure the viewer’s attention
• Problem: concise statement of the problem
Organize Information

• **Materials and Methods**: brief description of the processes and procedures
• **Results**: outcomes, findings, data
• **Conclusion**: summary, discussion of significance and relevance of results, a few easily remembered key conclusions, possible future research
• **References**
• **Acknowledgments**
Designing Your Poster – The Basics

- *Set slide dimensions first* (36”x 42”)
- **Title**: at least 72 pt., bold preferred
- **Section Headings**: at least 48 pt., bold preferred
- **Body Text**: at least 24 pt.
- **Avoid using all capital letters**
Designing Your Poster – The Basics

• Use **sans serif** (Arial) for **titles & headings**
• Use **serif** (Times New Roman) for **body text**
• Use **bulleted lists** where possible instead of paragraphs
• Use **italics instead of underlining**
• White or light colored lettering is hard to read on a dark background when printed. Use black lettering instead on a light colored rectangle
Layout - Title

- Most prominent feature
- Located at the top of the poster
- Centered
• Portrait-oriented layout
  – Read top to bottom
Layout - Body

- Landscape-oriented layout
  - Best to visually divide space into 2 or more columns and is read from left to right
Layout - Body

• Alignment
  – Align and size text blocks, headings, figures, etc. consistently
  – Leave enough room so that viewer can stay focused on individual sections
  – Justify each section
Which one of these is more appealing and professional?
Color

Should
• Highlight or emphasize
• Separate and define sections
• Associate related information

Should Not
• Compete with the information
• Overwhelm the viewer
This is an example of the sort of color combination that does not work well on a Power Point slide. One of the reasons is that the part of the macula that responds to blue light is at the opposite end of the macula that responds to red. Therefore, this particular combination of colors can set up a vaso vagal response. The vaso vagal response is part of the primitive nervous system that still remains. It is the equivalent of the “fight or flight” response. It can lead to feeling faint or light-headed, which could lead to vomiting, and fainting. Ask your ophthalmologist for details!
Guidelines for Figures

• Figures should not be smaller than 4” x 6”

• All figures should have captions and cited

• Place a thin outline around figures and photos to help them stand out from the background
Guidelines for Figures

• Images
  – For print, you ideally want 300 DPI
  – Do not “scale-up” an image you find online, keep it at its actual size
  – You can “scale-down” an image
Guidelines for Figures

• Images

  – To find large images specify “large” on your Google image search
  – There is no way to take a small, low resolution picture and make it large without pixilation
  – If possible, remove background around photo
Guidelines for Figures

• Graphs
  – Don’t accept the default colors and layout of the graphing program – match your color scheme
  – Avoid 3-D graphs – they are difficult to interpret
References

- Only needed if you cite others work on your poster
- Include at end or bottom of your poster
- Number them in citation order (if using numerical citations) or alphabetically (if using author-date citations)
- Format the references with the citation format used in the poster
Presenting

• Remain at your poster for the entire length of your allotted time

• Avoid reading your poster to your audience
  – Reading a poster is viewed as not knowing your own research or someone other than you did the research
  – Know your research
  – Keep visual contact with viewer
  – Refer to poster when emphasizing figures (photos and graphs)
  – Be confident

• Be prepared to, and offer to "walk your audience through your poster"
  – you should be able to explain the content of your poster in 2-3 minutes but no more than 10.
What is a coral reef?

Coral reefs are aragonite structures produced by living animal colonies, found in marine waters containing few nutrients. In most healthy reefs, stony corals are predominant. Stony corals are built from colonial polyps that secrete an exoskeleton of calcium carbonate. Reefs grow best in shallow, clear, sunny and agitated waters. The accumulation of skeletal material, broken and piled up by wave action and bioeroders, produces formation that supports the living corals and a great variety of other animal and plant life.

Often called “rainforests of the sea”, coral reefs form some of the most diverse ecosystems on earth. They occupy less than 1% of the world ocean surface, about half the area of France, yet they provide a home for 25% of all marine species, including fishes, molluscs, echinoderms and sponges.

Who lives on a coral reef?

Reefs are also home to a large variety of other organisms, including fish, seabirds, sponges, Cnidarians (which includes some types of corals and jellyfish), worms, crustaceans (including shrimp, cleaner shrimp, spiny lobsters and crabs), molluscs (including cephalopods), echinoderms, sea squirts, sea turtles and sea snakes.

Where are coral reefs?

Coral reefs are estimated to cover 284,300 square kilometers (109,800 sq mi), which is just under one percent of the surface area occupied by the world oceans. The Indo-Pacific region (including the Red Sea, Indian Ocean, Southeast Asia and the Pacific) account for 91.9% of this total. Southeast Asia accounts for 32.3% of that figure, while the Pacific including Australia accounts for 40.8%. Atlantic and Caribbean coral reefs only account for 7.6%.[14]

Although corals exist both in temperate and tropical waters, shallow-water reefs form only in a zone extending from 30° N to 30° S of the equator. Tropical corals do not grow at depths of over 50 meters (160 ft). The optimum temperature for most coral reefs is 26–27 °C, and few reefs exist in waters below 18 °C.[15] However reefs in the Persian Gulf have adapted to temperatures of 13 °C in winter and 38 °C in summer.[16]

References: http://en.wikipedia.org/wiki/Coral_reef
Direct measurement of the cost of Na\(^+\)-K\(^+\) ATPase function in mammalian skeletal muscle

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Abstract

Johnston et al. (2003; 2004) proposed the "optimal fiber size hypothesis" to explain the presence of very large anaerobic muscle fibers found in some fishes. These authors suggested that the reduced fiber surface area-to-volume (SA:V) in larger fibers reduced the ATP cost associated with maintaining the cell membrane potential via the Na\(^+\)-K\(^+\) ATPase. However, the greatest changes in SA:V as a function of cell diameter occur when fibers are small, and even minute increments in size may cause large changes in ATP consumption. Thus, fibers of modest sizes may be under the greatest selective pressure to become as large as they can be without being diffusion limited. To begin an analysis of the fiber-size dependent cost in mammalian skeletal muscle, I developed a method to directly measure the cost of the Na\(^+\)-K\(^+\) ATPase in mouse muscle. NMR measurements of phosphocreatine (PCr) depletion during inhibition of muscle energy metabolism was measured in 86 mouse EDL muscle with and without treatment of a Na\(^+\)-K\(^+\) ATPase inhibitor, ouabain. The rate of PCr depletion while energy metabolism was inhibited provided a measurement of the basal ATP costs of the resting muscle. The difference between the basal cost, and the cost in the presence of ouabain represented the ATP cost associated with Na\(^+\)-K\(^+\) ATPase function. I found that in adult mouse EDL muscle, the basal and Na\(^+\)-K\(^+\) ATPase costs were consistent with the literature. Further, the Na\(^+\)-K\(^+\) ATPase represented approximately 25% of the basal cost in the EDL. This work will provide a basis for directly assessing fiber-size dependent costs of muscle processes in a mammalian model system.

Methods

- Adult black b6 mice were used in this study for muscle extraction. We examined the energetics of EDL muscle tissue from adult mice using ex vivo 31P NMR techniques on small fiber preparations. Extensor digitorum longusus (EDL) muscle tissue was dissected from each leg, and bundles of several fibers (1-2 mm diameter) were tied to a perfusion tube and placed into a 5 mm NMR tube containing one of two treatments.
- The cost of metabolic processes was determined by monitoring the rate of phosphocreatine (PCr) in the presence of metabolic inhibitors. The rate of PCr depletion is equivalent to the rate of ATP demand. Muscle basal metabolic rate was measured by monitoring the rate of PCr decrease.
- The contribution to basal metabolic rate of the Na\(^+\)-K\(^+\) ATPase was determined from the reduction in the rate of PCr depletion when energy metabolism was blocked as above, while simultaneously treating the muscle with 5 mM ouabain, a Na\(^+\)-K\(^+\) ATPase inhibitor.

Conclusions

- Maintenance of the membrane action potential represents a sizable cost for mammals
- We successfully developed a method to directly measure the ATP cost of the Na\(^+\)-K\(^+\)ATPase in mammalian skeletal muscle
- Mouse Na\(^+\)-K\(^+\)ATPase ATP demand accounted for 25% of the total energy expenditure in resting muscle
- These results suggest that anaerobic muscle fibers may be under selective pressure to be as large as possible to reduce maintenance costs as proposed by the optimal fiber size hypothesis (Johnston et al., 2003; 2004)

References Cited


Johnston IA, Abercombie M, Andersen O (2006) Muscle Fibre varies with haemoglobin phenotype in Atlantic cod as predicted by the optimal fibre number hypothesis. Biolett 2: 590-592

Acknowledgements

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Black Women and their Acts of Activism Contributed to the Anti-Slavery Movement

By: Kiarra K. Wigfall

Mary Ann Shadd Cary
Writer, Lecturer, Emigrationist, Teacher, and Lawyer
Shadd was born free into an abolitionist family. Originally from Delaware, she migrated to Canada where she founded the Freeman and became the first African American woman to edit a newspaper. In 1849, Shadd wrote a 12 paged pamphlet titled “Hints to the Colored People of the North.” Through this pamphlet she wanted to urge blacks to take the initiative to gain their civil rights and stop depending on whites to do it for them.

Maria W. Stewart
America’s First Black Woman Political Writer
Stewart’s political views were rooted in black protest and abolitionist tradition. Stewart laid out her ideas and thoughts through writings published in the newspaper created by William Lloyd Garrison, The Liberator. Her religious and sermonic style influenced great leaders such as Frederick Douglass and Sojourner Truth. She was very militant in her argumentative technique; she urged her listeners to get involved with the anti-slavery

Sarah Parker Remond
Public Speaker
Remond was a writer who expressed herself through poetry and speeches. She focused her works on the sexual exploitation of slave women and defining the common womanhood between black and white women. She was also hired by the American Anti-Slavery Society as a lecturer for meetings in the U.S. and Europe.

“Away, away with tyranny and oppression!” — Maria W. Stewart

“AM I NOT A WOMAN”
Sojourner Truth

References


The Debate and Fluctuation of Drinking Ages: Late 70s through the Early 80s

Amanda Shortt

Drinking Ages Prior to July 17, 1984: The variety amongst the states

Although many states began to raise their legal drinking ages to 21, there was still a lot of debate amongst the remaining states. There were 7 states and D.C. that still kept their age at 18 while 17 had their's at 19 and 4 remained at 20. The other 22 states had previously raised their age to 21 years old.

Statistics: How drinking affected the population

In order to progress the movement towards a National raise in the drinking age, statistics were used to try to influence the public. In particular, statistics of drunk driving were used to show the danger of young drinkers. In 1983 the total driving fatalities was 42,589 and the total from alcohol related fatalities was 24,635. By the end of 1984 the total driving fatalities was 44,257 with 24,762 being alcohol related.

July 17, 1984: When the drinking age changed

On this date, the United State Congress passed legislation to raise the age of purchasing and publicly possessing alcohol to 21 years old. Under the Federal Aid Highway Act, a state who chose not to enforce the minimum age would lose 10% of their federal highway apportionment.

Although this law did not specifically outlaw the consumption of alcohol under the age of 21, seven states and Washington, D.C. extended it into an outright ban. While seven others allowed drinking with the consent of a supervising family member. Despite the loss of federal highway funds Wyoming was the last to raise their age to 21 on March 12, 1988.

The Debate: Why it became such an issue

Throughout the late 1970s and the early 1980s a lot of debate and fluctuation was experienced in the U.S. over the drinking age. Each state had their own view over the drinking age, therefore each had their own drinking age. With the different ages state to state problems ensued.

One of the major problems was the prospect of young drinkers traveling to states with a lower drinking age and then returning home by driving intoxicated. Therefore automobile fatalities increased and movements began towards a national drinking age.
Printing a Poster:

Poster request forms:  [www.uncw.edu/csurf](http://www.uncw.edu/csurf)

Send completed posters as an attachment to:

[csurf@uncw.edu](mailto:csurf@uncw.edu)
WAIT!!!!!!!....One Last Tip

• One of the greatest issues surrounding a poster is the spelling of Acknowledgments.

• Acknowledgments (CORRECT)
  – Used in American and Canadian English Language
• Acknowledgements (INCORRECT)
  – Used outside of North America

• If you misspell it, don’t worry. 9 out of 10 people will not recognize it.
Humanities Poster

- https://www.utexas.edu/ugs/our/poster/samples
- https://rgettatwestern.wordpress.com/2013/02/21/design-tips-for-creating-arts-and-humanities-poster/