

# Постерная сессия



# Зачем все это

- Поделиться достижениями
  - размножить мемы
- Получить оценку сделанного вами
  - подвергнуть их отбору
- Познакомиться со специалистами
  - создать среду для их распространения

# Готовьтесь к худшему

- В зале темно и жарко
- Публика устала
- Рядом с вами постеры высшего качества из лучших лабораторий
- Все ходят к друзьям, а вас никто не знает

# Как сделать постер

# Не следуйте дурным примерам

- Интернет завален плохими постерами
- Не будьте как все
- Покажите друзьям то ,что сделали
- Выложите на  
<https://www.flickr.com/groups/pimpmyposter/>



# Очень плохой постер



**PIGS IN SPACE:  
EFFECT OF ZERO GRAVITY AND  
AD LIBITUM FEEDING ON WEIGHT  
GAIN IN CAVIA PORCELLUS**

Colin B. Purrington  
6673 College Avenue, Swarthmore, PA 19081 USA

**ABSTRACT:**  
One ignored benefit of space travel is a potential elimination of obesity, a chronic problem for a growing majority in many parts of the world. In theory, when an individual is in a condition of zero gravity, weight is eliminated. Indeed, in space one could conceivably follow ad libitum feeding and never even gain an gram, and the only side effect would be the need to upgrade one's stretchy pants("exercise pants"). But because many diet schemes start as very good theories only to be found to be rather harmful, we tested our predictions with a long-term experiment in a colony of Guinea pigs (*Cavia porcellus*) maintained on the International Space Station. Individuals were housed separately and given unlimited amounts of high-calorie food pellets. Fresh fruits and vegetables were not available in space so were not offered. Every 30 days, each Guinea pig was weighed. After 5 years, we found that individuals, on average, weighed nothing. In addition to weighing nothing, no weight appeared to be gained over the duration of the protocol. If space continues to be gravity-free, and we believe that assumption is sound, we believe that sending the overweight — and those at risk for overweight — to space would be a lasting cure.

**INTRODUCTION:**  
The current obesity epidemic started in the early 1960s with the invention and proliferation of elastane and related stretchy fibers, which released wearers from the rigid constraints of clothes and permitted monthly weight gain without the need to buy new outfits. Indeed, exercise today for hundreds of million people involve only the act of wearing stretchy pants in public, presumably because the constrictive pressure forces fat molecules to adopt a more compact tertiary structure (Xavier 1965).  
Luckily, at the same time that fabrics became stretchy, the race to the moon between the United States and Russia yielded a useful fact: gravity in outer space is minimal to nonexistent. When gravity is zero, objects cease to have weight. Indeed, early astronauts and cosmonauts had to secure themselves to their ships with seat belts and sticky boots. The potential application to weight loss was noted immediately, but at the time travel to space was prohibitively expensive and thus the issue was not seriously pursued. Now, however, multiple companies are developing cheap extra-orbital travel options for normal consumers, and potential travelers are also creating news ways to pay for products and services that they cannot actually afford. Together, these factors open the possibility that moving to space could cure overweight syndrome quickly and permanently for a large number of humans.  
We studied this potential by following weight gain in Guinea pigs, known on Earth as fond of ad libitum feeding. Guinea pigs were long envisioned to be the "Guinea pigs" of space research, too, so they seemed like the obvious choice. Studies on humans are of course desirable, but we feel this current study will be critical in acquiring the attention of granting agencies.

**MATERIALS AND METHODS:**  
One hundred male and one hundred female Guinea pigs (*Cavia porcellus*) were transported to the International Space Laboratory in 2010. Each pig was housed separately and deprived of exercise wheels and fresh fruits and vegetables for 48 months. Each month, pigs were individually weighed by duct-taping them to an electronic balance sensitive to 0.0001 grams. Back on Earth, an identical cohort was similarly maintained and weighed. Data was analyzed by statistics.

**RESULTS:**  
Mean weight of pigs in space was  $0.0000 \pm 0.0002$  g. Some individuals weighed less than zero, some more, but these variations were due to reaction to the duct tape, we believe, which caused them to be alarmed push briefly against the force plate in the balance. Individuals on the Earth, the control cohort, gained about 240 g/month ( $p = 0.0002$ ). Males and females gained a similar amount of weight on Earth (no main effect of sex), and size at any point during the study was related to starting size (which was used as a covariate in the ANCOVA). Both Earth and space pigs developed substantial dewlaps (double chins) and were lethargic at the conclusion of the study.

**CONCLUSIONS:**  
Our view that weight and weight gain would be zero in space was confirmed. Although we have not replicated this experiment on larger animals or primates, we are confident that our result would be mirrored in other model organisms. We are currently in the process of obtaining necessary human trial permissions, and should have our planned experiment initiated within 80 years, pending expedited review by local and Federal IRBs.

**ACKNOWLEDGEMENTS:**  
I am grateful for generous support from the National Research Foundation, Black Hole Diet Plans, and the High Fructose Sugar Association. Transport flights were funded by SPACE-EXES, the consortium of wives divorced from insanely wealthy space-flight startups. I am also grateful for comments on early drafts by Mariana Athletic Club, Corpus Christi, USA. Finally, sincere thanks to the Cuy Foundation for generously donating animal care after the conclusion of the study.

**LITERATURE CITED:**  
NASA. 1982. Project STS-XX: Guinea Pigs. Leaked internal memo.  
Sekulić, S.R., D. D. Lukač, and N. M. Naumović. 2005. The Fetus Cannot Exercise Like An Astronaut: Gravity Loading Is Necessary For The Physiological Development During Second Half Of Pregnancy. Medical Hypotheses. 64:221-228  
Xavier, M. 1965. Elastane Purchases Accelerate Weight Gain In Case-control Study. *Journal of Obesity*, 2:23-40.

# Хороший постер

## Easy application of **Maggot Debridement Therapy** to treat chronic abscesses in laminitic horses



Daisy Bicking

Daisy Haven Farm, Parkesburg, PA 19365

### Introduction

Hoof infections are often the cause of euthanasia in the chronically laminitic horse, especially those whose immune reactions are compromised by Cushing's syndrome or insulin resistance. Maggot Debridement Therapy (MDT) can be an effective treatment for such infections (Jurga and Morrison 2004, Sherman *et al.* 2007), but unfortunately the procedure is underutilized because it is perceived as difficult and expensive.

This poster displays the ease with which MDT can be applied, and summarizes the effectiveness of the procedure.

### Materials and methods

"PW" was a 19 year-old mare with chronic hoof infections in both front feet. Infections were exposed, then subjected to the protocol detailed in the photographs below. Larvae (*Phaenicia sericata*) were obtained from Monarch Labs in Irvine, CA.

After a second course of maggots, site was kept covered until it had dried and keratinized, approximately 6 weeks from start of treatment.

### Results

As illustrated by the images here, MDT aided in the removal of the necrotic and infected tissue, and new healthy tissue was able to grow.

Including "PW," our hoof-care practice has used MDT to successfully resolve conditions in 15 horses since November 2009.

### Conclusions

Maggot Debridement Therapy is an incredibly useful tool when fighting hoof infection in the chronically laminitic horse. The availability of a less expensive, easier method means Maggot Debridement Therapy is more accessible for more animals and can also be applied in the field by the veterinarian, hoof-care provider, or the animal's other care-givers when prescribed.



1. Medical maggots (Monarch Labs)



2. Supplies needed



3. Place maggots into wound



4. Cover with chiflon gauze creating window



5. Secure with Elastikon



6. Composite rim shoe adds height above dressing



7. Attach composite rim shoe with Elastikon



8. Leave window in gauze accessible



9. 4x4" gauze and diaper absorb exudate



10. Change 4x4" gauze and re-wrap daily



11. Secure diaper with vet tape



12. Not too tight at coronet band



13. Wrap with duct tape



14. Within 3-5 days maggots mature



15. Flush maggots out with CleanTrax



### Literature cited

Jurga F, and S Morrison. 2004. Maggot debridement therapy. *Hoofcare & Lameness* 78:28-31.  
Sherman, RA, H Stevens, D Ng, and E Iversen. 2007. Treating wounds in small animals with maggot debridement therapy: a survey of practitioners. *Veterinary Journal* 173:138-43.

### Acknowledgements

I would like to thank Fran Jurga for her support and encouragement, and the Penn Vet Laminitis Institute for hosting this conference and opening the poster forum to allow me the opportunity to present this information to my peers. I would also like to thank Dr Karen Gellman, Dr Judith Shoemaker, Stacie Shain, and Terry Boswell for reviewing my poster. Photograph of adult green bottle fly courtesy John Talbot.

### Further information

Please visit [www.daisyhavenfarm.com](http://www.daisyhavenfarm.com) for more information, or contact me at 610-476-6900 or [daisyhavenfarm@gmail.com](mailto:daisyhavenfarm@gmail.com).



# Гениальный постер

**{ NEXT GEN SEQUENCING }**  
millions of reads  
hard to completely assemble

**{ FRAGMENTED ASSEMBLIES }**  
repeat regions difficult to bridge  
uneven read coverage

**{ REQUIRE FINISHING }**  
join contigs together  
trim nucleotide sequences  
add PCR sequences

**{ FINISHING ERRORS }**

- [ human error ]  
manually joining contigs and trimming sequences can introduce errors
- [ unreproducible ]  
manually editing a sequence can't be repeated by anyone else
- [ hard to change ]  
large blocks of nucleotide sequence are hard to update and determine the source contig

scaffolder

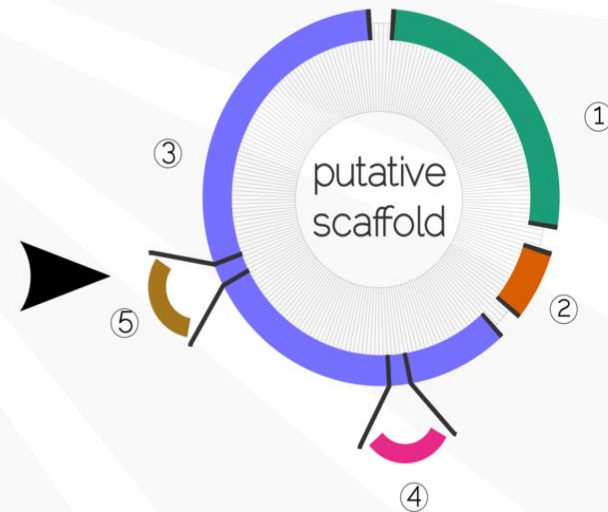
microbial genome scaffolding software

<http://next.gs>

michael d barton\*, hazel a barton  
northern kentucky university

scaffold file

```
1 sequence:
  source: 'sequence1'
-
2 unresolved
  length 20
-
3 sequence:
  source: 'sequence2'
  start 30
  stop 1000
  reverse: true
  inserts:
-
4 source: 'insert1'
  start 8
  stop 160
  reverse: true
  open 200
  close 250
-
5 source: 'insert2'
  open 400
```



## reproduce

remove human-error and scaffolds can be reliably reproduced from the same data

## separate

separate sequence from the scaffold organisation and preserve the original assembly data

## edit

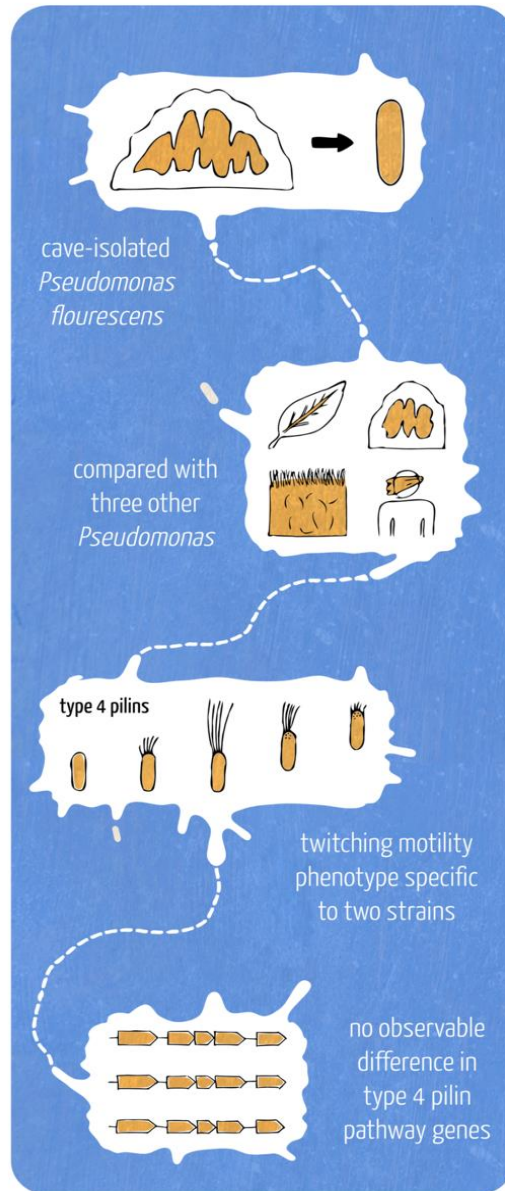
easier to edit the scaffold file compared with raw nucleotide sequence

## visualise

provides an overview of the genome construction and allows easier comparisons of differences in scaffolds

\*mail@michaelbarton.me.uk

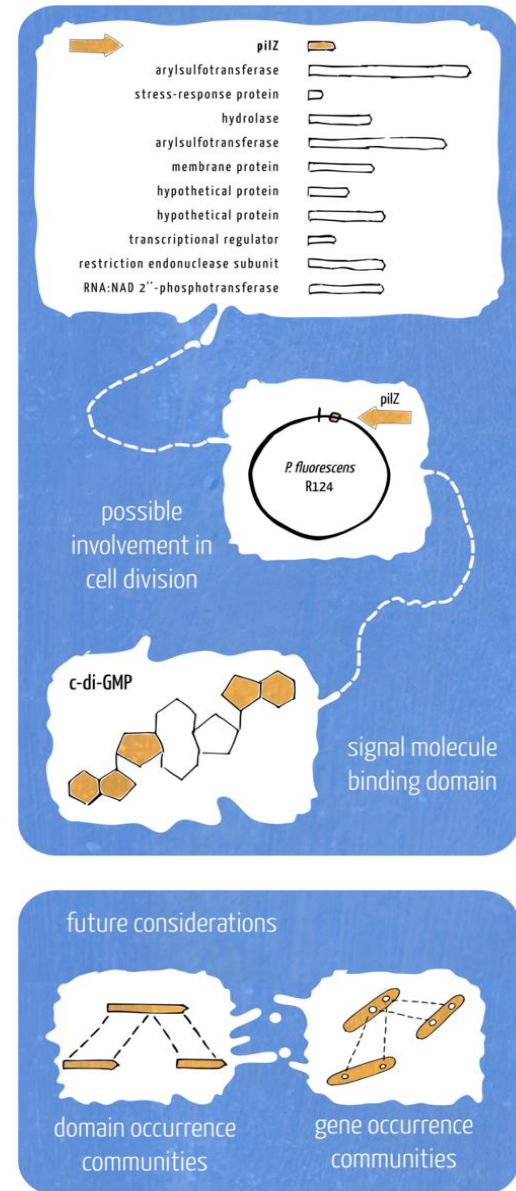
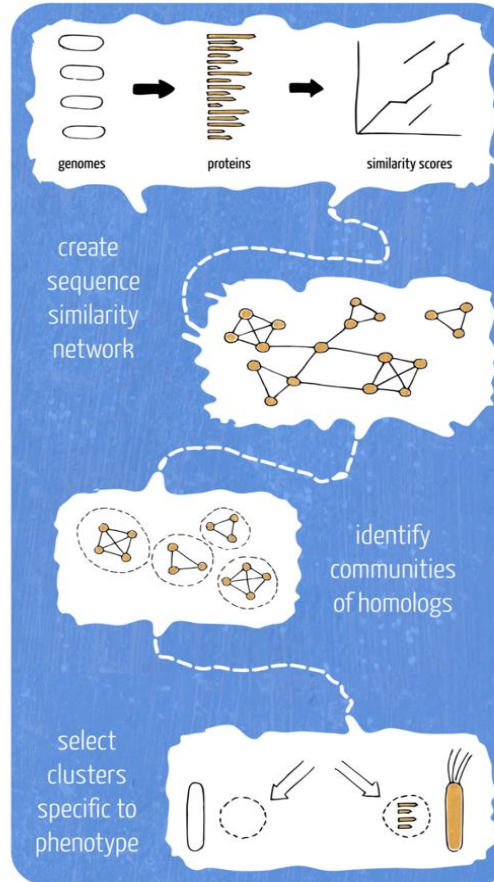
# Гениальный постер



## predicting genotype from phenotype

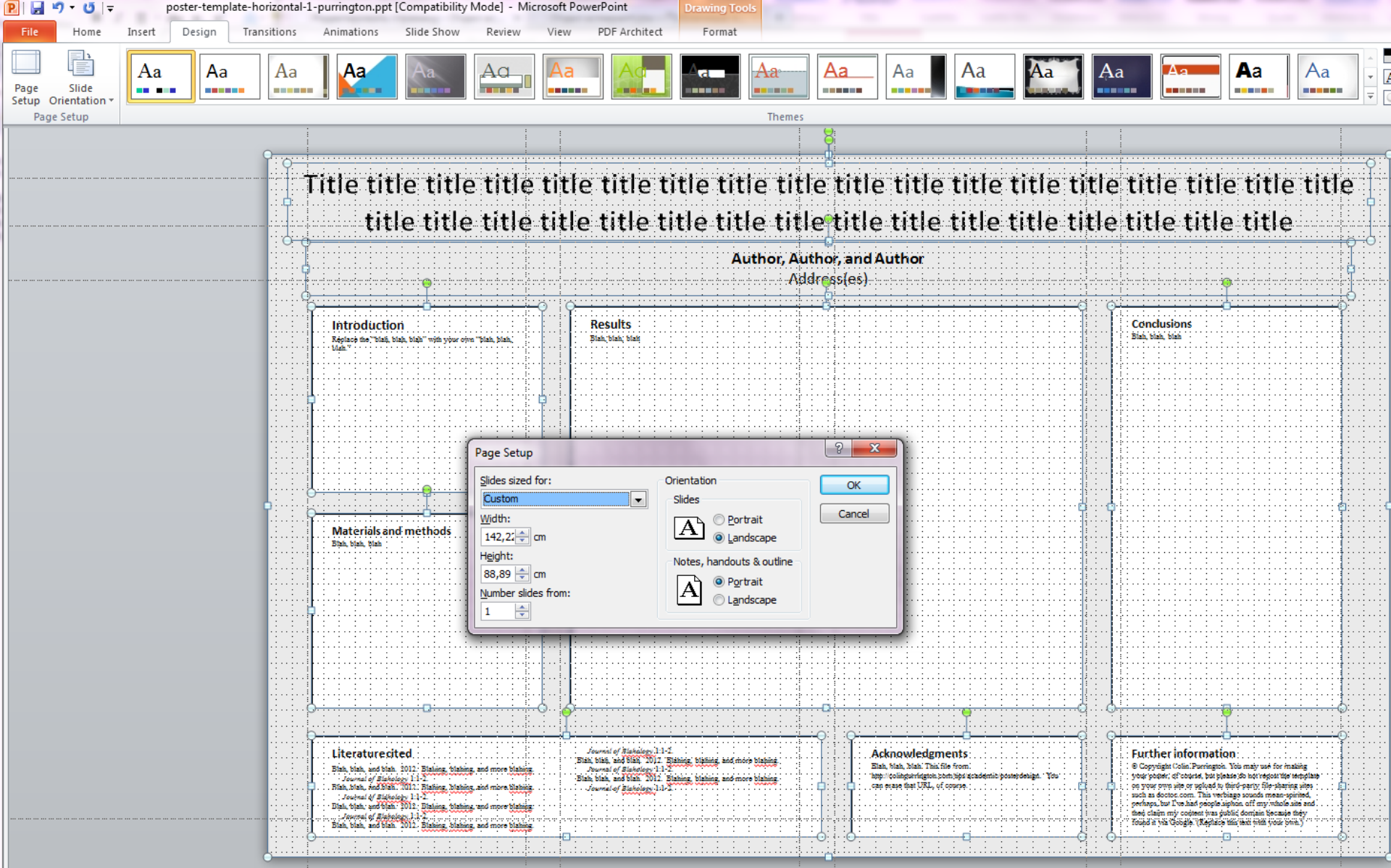
Michael D. Barton, Hazel A. Barton  
University of Akron

[www.michaelbarton.me.uk](http://www.michaelbarton.me.uk)



# Программы

- От руки
- PowerPoint
- Inkscape (<http://www.inkscape.org/ru/>)



<http://colinpurrington.com/wp-content/uploads/2011/09/poster-template-horizontal-1-purrington.ppt>  
<http://colinpurrington.com/wp-content/uploads/2011/09/poster-template-horizontal-1-purrington.odg>

# title title title title title title title title title title title title title title title title title

Author, Author, and Author  
Address(es)

NEXT

## Introduction

Blah, blah, blah.

## Results

Blah, blah, blah

## Conclusions

Blah, blah, blah

## Materials and methods

Blah, blah, blah

## Literature cited

Blah, blah, and blah. 2012. Blahing, blahing, and more blahing. *Journal of Blahology* 1:1-2.  
Blah, blah, and blah. 2012. Blahing, blahing, and more blahing. *Journal of Blahology* 1:1-2.  
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## Acknowledgments

Blah, blah, blah

## Further information

Blah, blah, blah.

<http://colinpurrington.com/wp-content/uploads/2011/09/poster-template-horizontal-2-purrington.ppt>

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**Author, Author, and Author**  
Address(es)

## Introduction

Blah, blah, blah.

## Results

Blah, blah, blah

More blah, blah, blah

## Conclusions

Blah, blah, blah

## Materials and methods

Blah, blah, blah

### Literature cited

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## Acknowledgments

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### Further information

Blah, blah, blah.

## Introduction

Replace the “blah, blah, blah” with your own “blah, blah, blah.”

## Results

Blah, blah, blah

## Conclusions

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## Materials and methods

Blah, blah, blah

### Further information

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## Acknowledgments

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## Introduction

Replace the "blah, blah, blah" with your own "blah, blah, blah."

## Results

Blah, blah, blah

## Materials and methods

Blah, blah, blah

## Conclusions

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For even more blah, blah, blah, please visit my blahg at <http://colingurrington.com>.

### Literature cited

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Blah, blah, and blah. 2012. Blahing, blahing, and more blahing. *Journal of Blahology* 1:1-2.

## Acknowledgments

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# Структура

- Заголовок – 1-2 строчки –
  - Происхождение видов
  - ~~ПРОИСХОЖДЕНИЕ ВИДОВ~~
  - ~~Происхождение Видов~~
  - ~~Происхождение видов~~
  - ~~Происхождение~~ ~~видов~~
- Авторы - минимум
- Не надо тезисов
- Введение – проблема, гипотеза, проверка- 200 слов



# Структура

- M&M – схема и <200 слов
- Результаты – графики, схемы, фотографии - <200 слов
- Заключение – что показано и почему это важно –схема и <200 слов

# Структура

- Ссылки – < 5 в минимальном формате (Иванов и др. Генетика, 2014, 7:345-349)
- Благодарности – (не надо титулов) - 40 слов
- Контакт – e-mail, адрес, веб-страница откуда можно загрузить pdf постера

# ФОНТЫ

- Заголовки – Ариал (Sans Serif)
  - Происхождение видов
- Тексты (Serif) – Таймс нью роман
  - Происхождение видов
- Заголовков: 85 -100 pt
- Авторы: 56 -60 pt
- Подзаголовки : 36 -44 pt
- Текст: 24 -28 pt
- Подписи: 18 -20 pt

# Параграфы

- Выравнивание по левому краю
- 40 знаков
- 1 интервал
- Не больше 10 предложений в блок
- Лучше список чем сплошной текст
- Ручная проверка и коррекция пробелов



# По ширине, > 40 знаков, 2 инт

Путешествуя на корабле ее величества «Бигль» в качестве натуралиста, я был поражен некоторыми фактами в области распространения органических существ в Южной Америке и геологических отношений между прежними и современными обитателями этого континента. Факты эти, как будет видно из последующих глав этой книги, кажется, освещают до некоторой степени происхождение видов — эту тайну из тайн, по словам.



По ширине, << 40 знаков, 2 инт

Путешествуя на

корабле ее

величества

«Бигль» в качестве

натуралиста, я был

поражен

некоторыми

фактами в области

распространения

органических



# По левому , 40 знаков, 1 инт

Путешествуя на корабле ее величества «Бигль» в качестве натуралиста, я был поражен некоторыми фактами в области распространения органических существ в Южной Америке и геологических отношений между прежними и современными обитателями этого континента. Факты эти, как будет видно из последующих глав этой книги, кажется, освещают до некоторой степени происхождение видов — эту тайну из тайн, по словам одного из наших величайших философов.

# По левому , 40 знаков, 1 инт., список

Путешествуя на корабле «Бигле», я 100 500 раз был поражен фактами

- в области распространения органических существ в Южной Америке (РОСВЮА)
- геологических отношений между прежними и современными обитателями континента.

Факты эти РОСВЮА освещают происхождение видов — эту тайну из тайн.

# По левому , 40 знаков, 1 инт., список, гашение фонтов

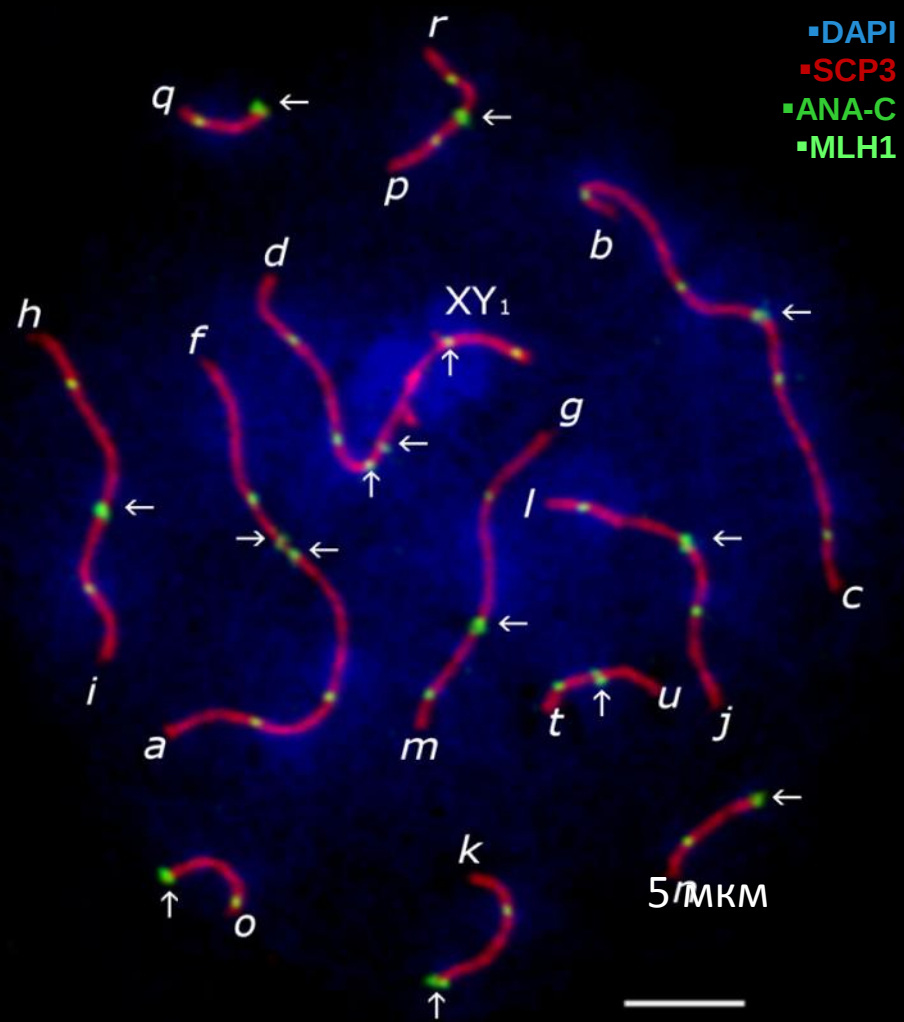
Путешествуя на корабле «Бигле», я был 100 500 раз поражен фактами

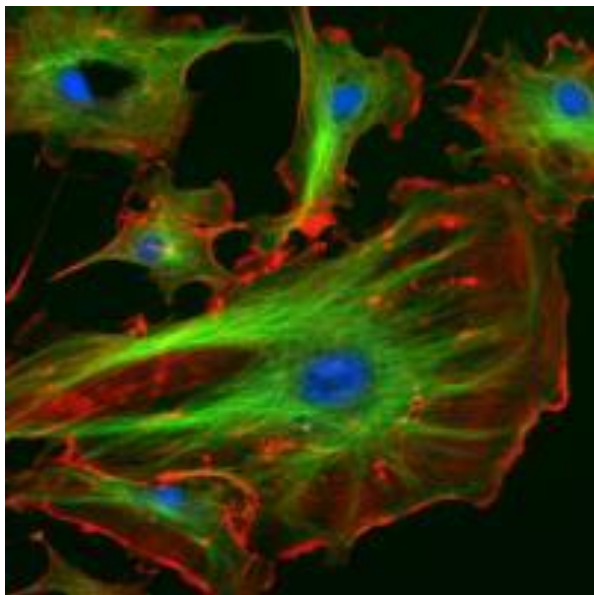
- в области распространения органических существ в Южной Америке (РОСВЮА)
- геологических отношений между прежними и современными обитателями континента.

Факты РОСВЮА освещают происхождение видов — эту тайну из тайн.

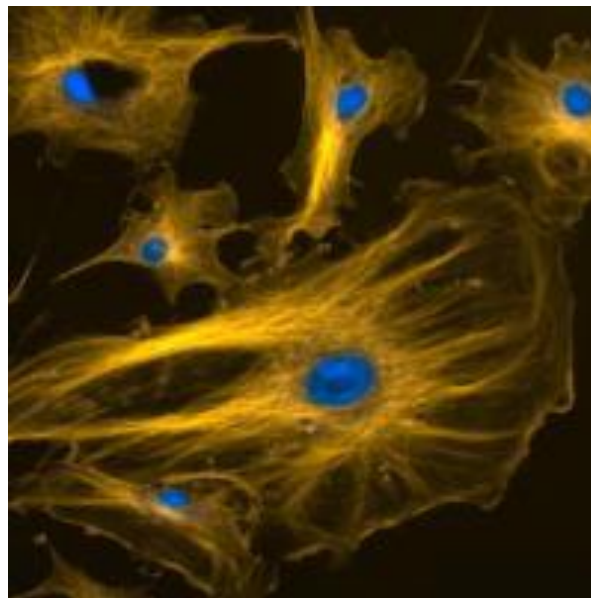
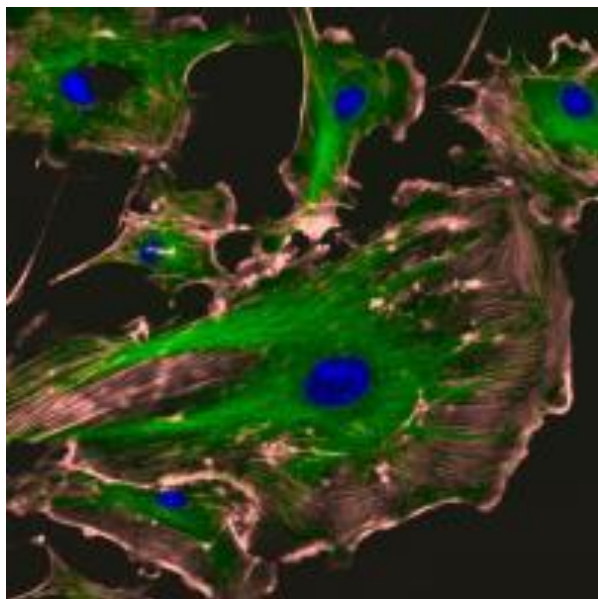
# Рисунки

- Разрешение – 300 dpi
- Контрастные цвета, проверка на печати
- Если не нравится – сделайте в Кодаке и наклейте
- Не экономьте на печати
- Проверка на дальтонизм
- Подписи на рисунке, а не под ним
- Ссылки на чужое

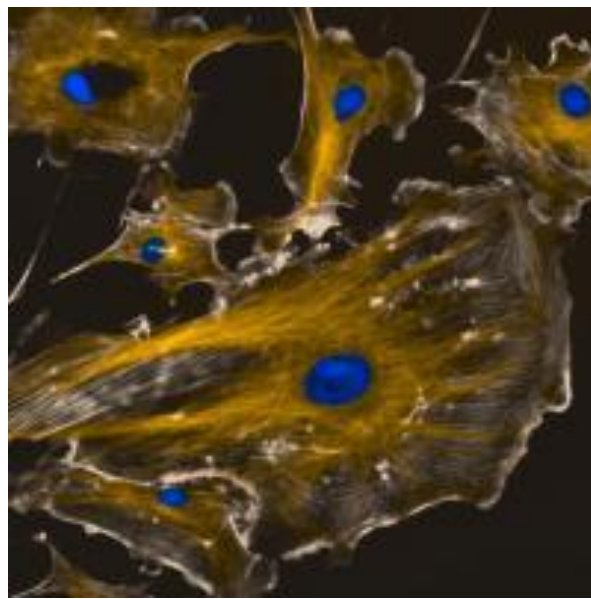




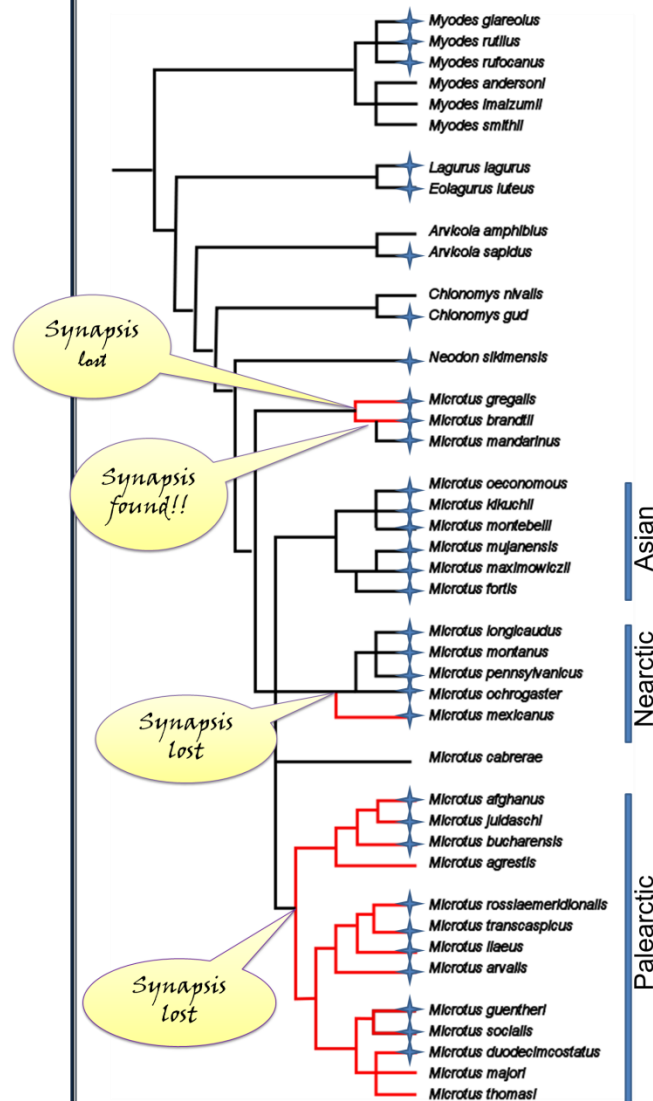
- Норма



Дальтонизм



## Phylogeny of Arvicolinae



According to Abramson et al., 2009; Conroy & Cook 2000

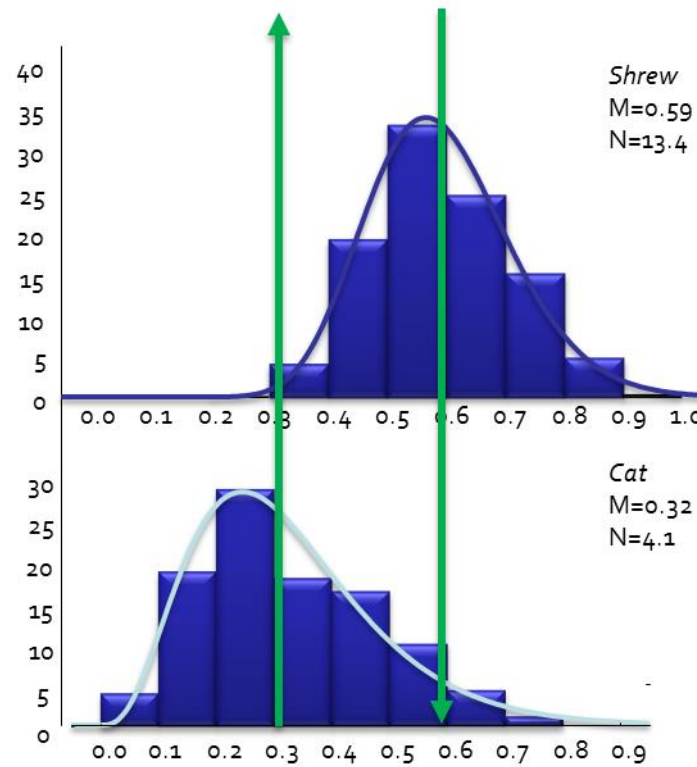
Black –synaptic lineages, red – asynaptic lineages.

# Графики

- Убрать
  - детали, фоны, рамки, горизонтальные линии
- Подписи вручную
- 2D для 2D
- Подписи, надписи, шкалы не меньше 20 pt



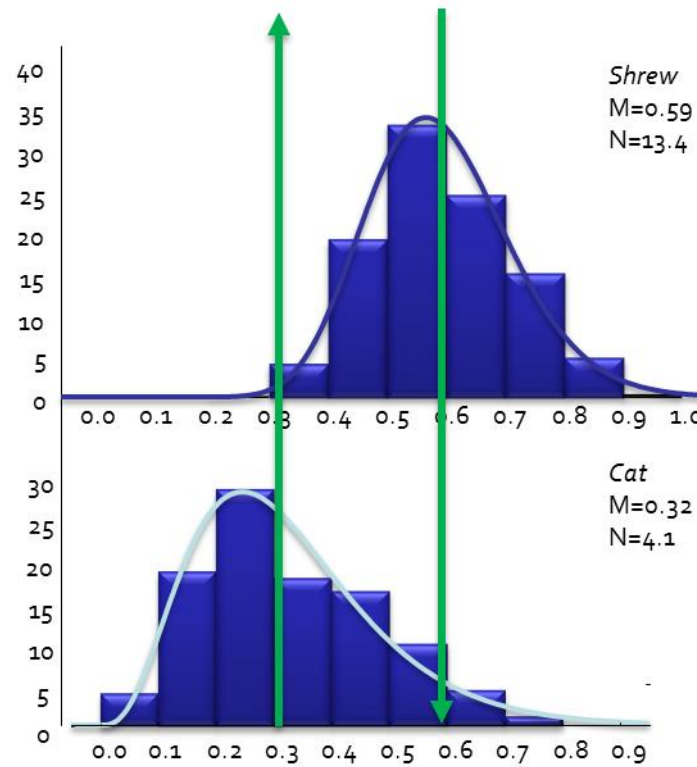
SC frequency



Relative distances  
between rec sites

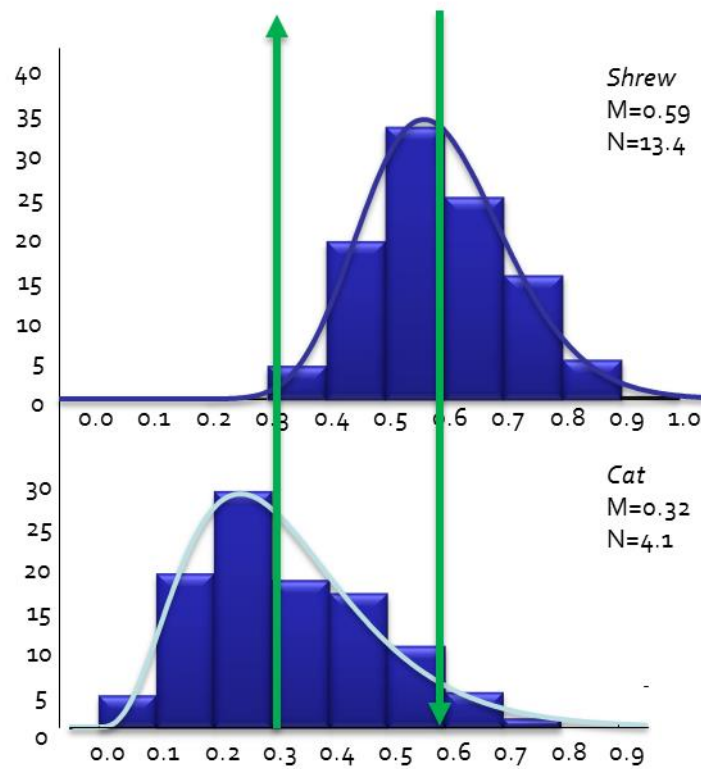


SC frequency



Relative distances  
between rec sites

SC frequency



Relative distances  
between rec sites

# Таблицы

| Виды   | Север | Юг | Запад | Восток |
|--------|-------|----|-------|--------|
| Гуси   | 23    | 1  | 0     | 0      |
| Лебеди | 24    | 2  | 0     | 0      |
| Итого  | 47    | 3  | 0     | 0      |

| Виды   | Север | Юг | Запад | Восток |
|--------|-------|----|-------|--------|
| Гуси   | 23    | 1  | 0     | 0      |
| Лебеди | 24    | 2  | 0     | 0      |
| Итого  | 47    | 3  | 0     | 0      |

# Таблицы



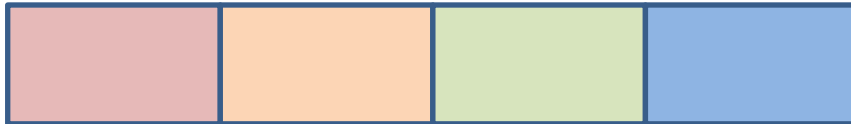
| Combination | Arm  | Karyotype  |       |              |          |            |       | Eff of karyotype |       |     |
|-------------|------|------------|-------|--------------|----------|------------|-------|------------------|-------|-----|
|             |      | Homozygous |       | Heterozygous |          | Homozygous |       | F                | df    | P   |
|             |      | not fused  |       |              |          | fused      |       |                  |       |     |
| Rb B3A1     | A1   | 1.93       | ±0.53 | 1.86         | ±0.44*   | 1.66       | ±0.55 | 50.9             | 2.185 | 0.0 |
|             | B3   | 0.86       | ±0.35 | 0.90         | ±0.31*   | 0.37       | ±0.49 | 19.3             | 2.134 | 0.0 |
| Rb B3B2     | B2   | 0.98       | ±0.30 | 0.69         | ±0.47**  | 1.00       | ±0.45 | 17.7             | 2.152 | 0.0 |
|             | B3   | 0.86       | ±0.35 | 0.53         | ±0.51**  | 0.52       | ±0.50 | 10.8             | 2.180 | 0.0 |
|             | B2   | 0.98       | ±0.30 | 0.79         | ±0.41*   | 1.00       | ±0.45 | 8.3              | 2.132 | 0.0 |
| tA2A15      | A2q  | 1.58       | ±0.57 | 1.72         | ±0.52*** |            |       | 18.6             | 1.178 | 0.0 |
|             | A15q |            |       | 0.72         | ±0.44*** | 0.69       | ±0.46 | 1.5              | 1.178 | 0.2 |
|             | A15p |            |       | 0.91         | ±0.25*** | 0.27       | ±0.44 | 70.5             | 1.178 | 0.0 |

# Цвета

- Черным по белому
- Белого должно быть много (>40%)
- Избегайте диких цветов



- Держитесь спокойной гаммы



# Цвета

## • aeiko



## • Peach Green & Seeds



## • Rust



## • dollar



# Цвета и оформление

- Черным по белому



# Оформление

- Логотипа лучше не надо, если надо – то в самом низу и пренебрежимо мелко

# Оформление

- Логотипа лучше не надо, если надо – то в самом низу и пренебрежимо мелко

# Оформление

- Избегайте линий и рамок
- Привяжите рисунки к тексту
- Сбалансируйте композицию

# Как представить постер

# Представление

- Нет
- еде и жвачке
- духам Красная Москва
- солнечным очкам
- топикам, маечкам, смокингам, шлепанцам
- шпаргалкам



# Представление

- Зашить карманы
- Взять фонарик, черную ручку и замазывалку
- Прилепить автопортрет
- Выложить оттиски статей и распечатки постера

# Представление

- Приготовьте текст из 4 предложений
  - о чем это;
  - зачем это;
  - что вы сделали;
  - что получилось;
  - take-home message
- Будьте готовы начать его с любой точки

# Представление

- Дождитесь пока зритель просмотрит постер и задаст вопрос
- Отвечайте на вопрос и только потом переходите к полной истории
- Следите за реакцией
- Если ему скучно - вежливо закруглитесь
- Задавайте вопросы зрителю о своей и его работе
- Благодарите предметно

# Представление

- Говорите со зрителем, а не с постером
- Показывайте ручкой, а не пальцем
- Закончите с первым зрителем, потом переходите к остальным
- Подходящих приветствуйте и говорите где вы находитесь
- Много фотографий или важное видео – возьмите планшет

# Представление

- Готовьте зрителей заранее
- Ходите на другие постеры, и люди к вам потянутся
- Не стесняйтесь подсадных зрителей
- Следите за постером вне сессии



## Aesthetics, etc.

atrocious  wonderful

## Comments

Brevity (word count)

|   |   |   |   |   |   |   |   |   |    |
|---|---|---|---|---|---|---|---|---|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|

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White space

|   |   |   |   |   |   |   |   |   |    |
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Layout and flow

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Background color

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Image attribution

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Font choice

|   |   |   |   |   |   |   |   |   |    |
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Spelling

|   |   |   |   |   |   |   |   |   |    |
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## Content

Framing of issue

|   |   |   |   |   |   |   |   |   |    |
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Hypothesis

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Procedure

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Results

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Conclusions/relevance

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
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## Presentation

Engagement

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|---|---|---|---|---|---|---|---|---|----|
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Mastery of topic

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|---|---|---|---|---|---|---|---|---|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|

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Score

Summary