# Reference genes and normalisation

# Results of the quiz

1. Did you learn anything new?

| | no | yes | a lot |
|---|---|---|---|
| Lecture 6 | | 100% | |
| Seminar 2 | 8% | 84% | 8% |

2. Will you remember it tomorrow?

| | no | maybe | yes |
|---|---|---|---|
| Lecture 6 | | 60% | 40% |
| Seminar 2 | 8% | 53% | 38% |

# Results of the quiz

3. was the amount of information ok?

| | too much | ok | not enough |
|---|---|---|---|
| Lecture 6 | | 90% | |
| Seminar 2 | 8% | 92% | |

4. Were the tasks/examples ok?

| | too easy | ok | too hard |
|---|---|---|---|
| Lecture 6 | 10% | 70% | 20% |
| Seminar 2 | 8% | 69% | 23% |

# Results of the quiz

6. was the homework useful?

| | yes | no |
|---|---|---|
| Seminar 2 | 77% | |

you are busy enough, I don't want to waste your time

7. Would you like to be your own student today?

| | yes | not yet | no |
|---|---|---|---|
| Seminar 2 | 38% | 23% | 16% |

this is my attempt to make you look at yourself from a teachers perspective

# Results of the quiz

## 7. suggestions how to improve the seminar

reduce time devoted to calculation

increase time devoted to calculation

tech practical part ahead of theoretical

I'd like to have more details on this one

too much english

more time to think

if you don't want to reduce amount of information, would you like to prolong the course?

# Results of the quiz

8. questions for today

Practical

Calculations for normalisation

usage of softwares

M value

# Group work

Group 1:
Reza
Konstantia
Enid
Martin

Enid's PC

Group 2:
Jun
Zaenab
Jule
Kiran

Alyona's Mac

Group 3:
Anna
Maite
Enrique
Poorva

Poorva's Mac

Group 4:
Anders
Mohammed
Shirin
Estelle?

Shirin's Mac

D. melanogaster

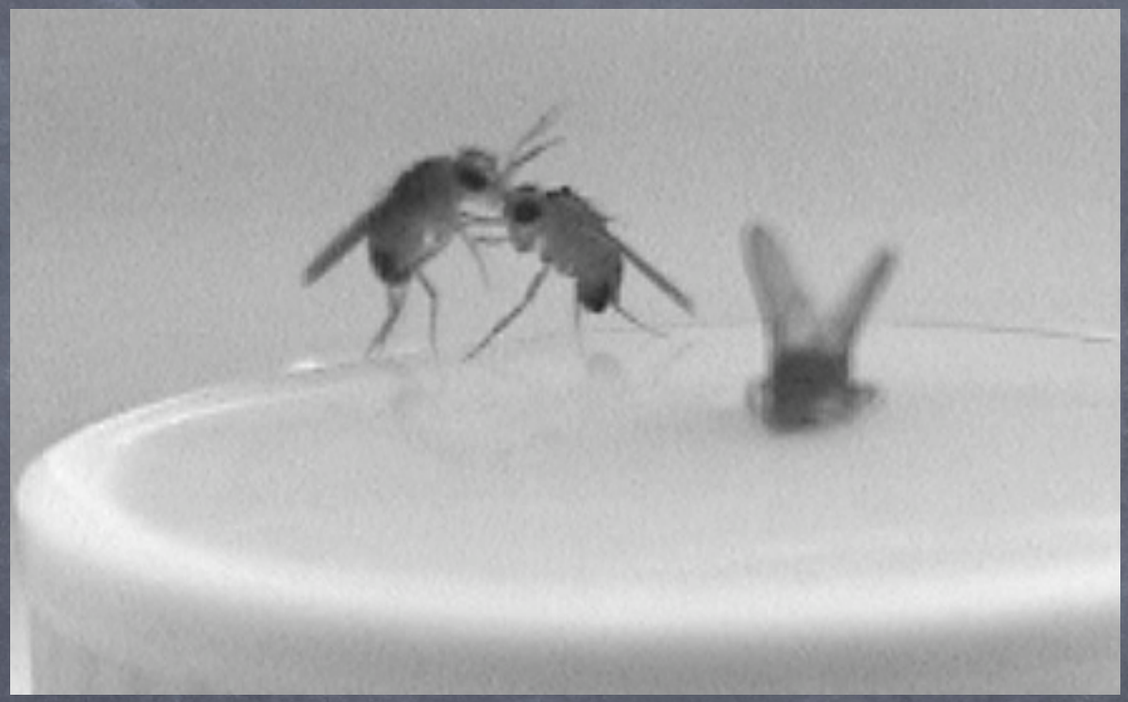
S. lycopersicum

NB!! None of the following experiments are recommended for scientific or any other purposes!

# Group 1

## You work with Drosophila melanogaster

You want to know if aggressive flies produce more saliva than non aggressive flies



You are going to detect it by measuring expression levels of Lysozyme X gene

Please find reference genes suitable for the qPCR

# Group 2

## You work with Drosophila melanogaster

You want to know if gamma-irradiated flies develop strong biceps

You are going to detect it by measuring expression levels of tropomyosin gene

Please find reference genes suitable for the qPCR

# Group 3

You are running an underground tomato fight club in Vietnam

You are interested in tomatoes which get sweeter after fight

You are going to compare different cultivars measuring expression levels of aldolase B gene upon wounding a ripe tomato fruit in high humidity climate

Please find reference genes suitable for the qPCR

# Group 4

On half of your plantation your MoneyMaker tomatoes look like this:

This is viroid PTSVd infection, difficult to get rid of. You know that infection induces flavonoid production and have a brilliant marketing idea to rebrand the sad tomatoes as antioxidant enriched veggies

You want to find out whether Rutger cultivar has higher than MoneyMaker expression of a flavonoid 3 O-glucosyltransferase gene during PTSVd infection.

Please find reference genes suitable for the qPCR

You have 20 minutes

Do you need more time?

Please present your results
and explain your choice

# Questions from your homework

Next homework will be statistical analysis

Next-next homework will be a written report

do you think it is too much?