58th ICoMST
MONTRÉAL CANADA 2012
International Congress of Meat Science and Technology

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Meat proteins – part of a healthy lunch

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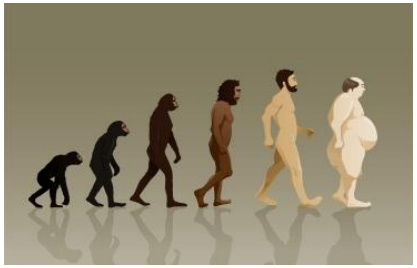
Meat proteins in the obesogenic world

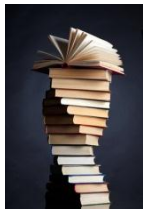
PROBLEM

Global burden of obesity



SOLUTION - one of many…

Foods to control appetite



Satiety studies

Proteins promote satiety

New meat products or formulations with satiating effects

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Objective

How do high protein meals containing pork affect appetite and energy intake?

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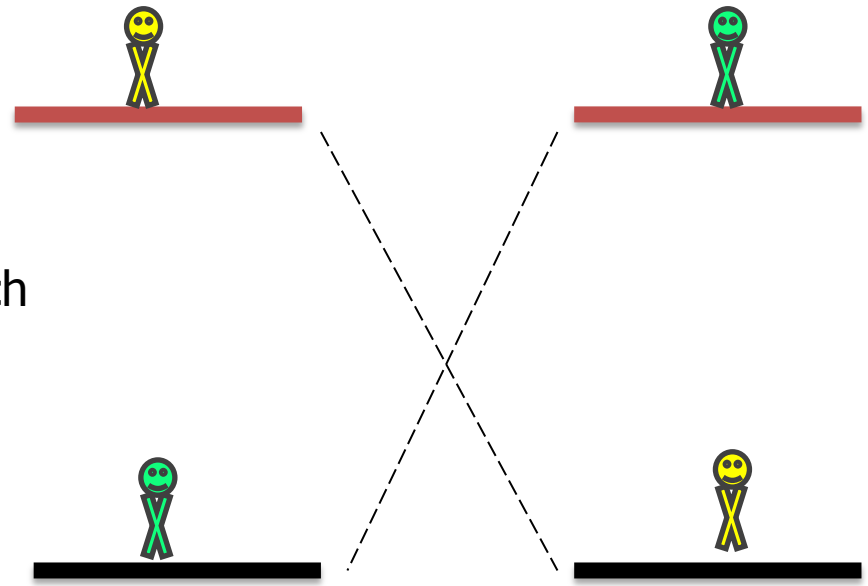
Study design

TEST MEALS

High meat protein lunch
Protein: 35E%

Normal lunch
Protein: 15E%

DAY 1 **DAY 2**



OUTCOME

Ad libitum energy intake

Appetite measurements

Repeated for 2 weeks

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How to measure *ad libitum* energy intake

5½ hours

Test lunch → Ad libitum buffet → Calculate energy intake

LUNCH **DINNER**

High meat protein lunch

Normal lunch

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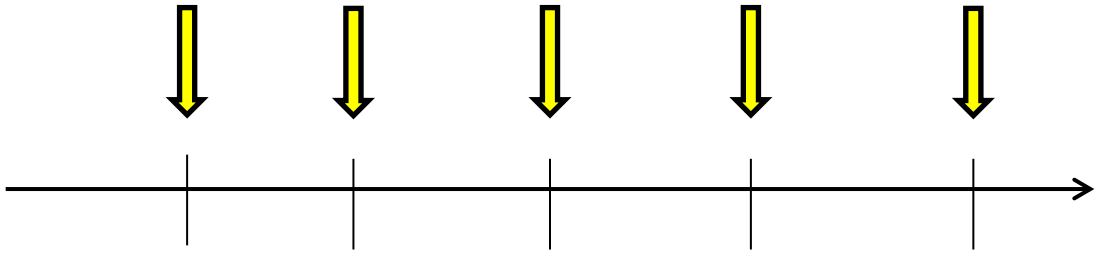
How to measure appetite

How hungry do you feel right now?

I am not at all hungry

I am extremely hungry

Appetite measurements



Study location and participants

Danish boarding school

134 students (15-16 years old)

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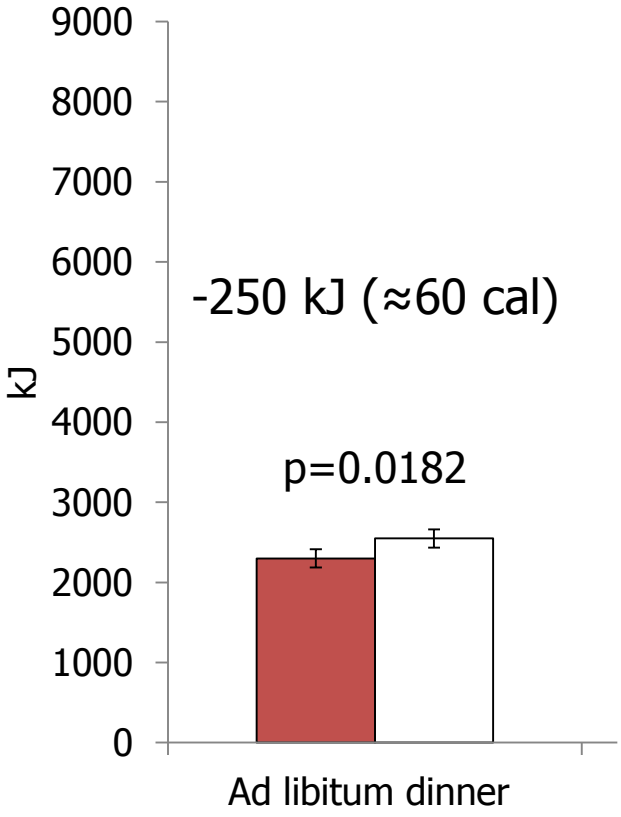
Results – energy intake

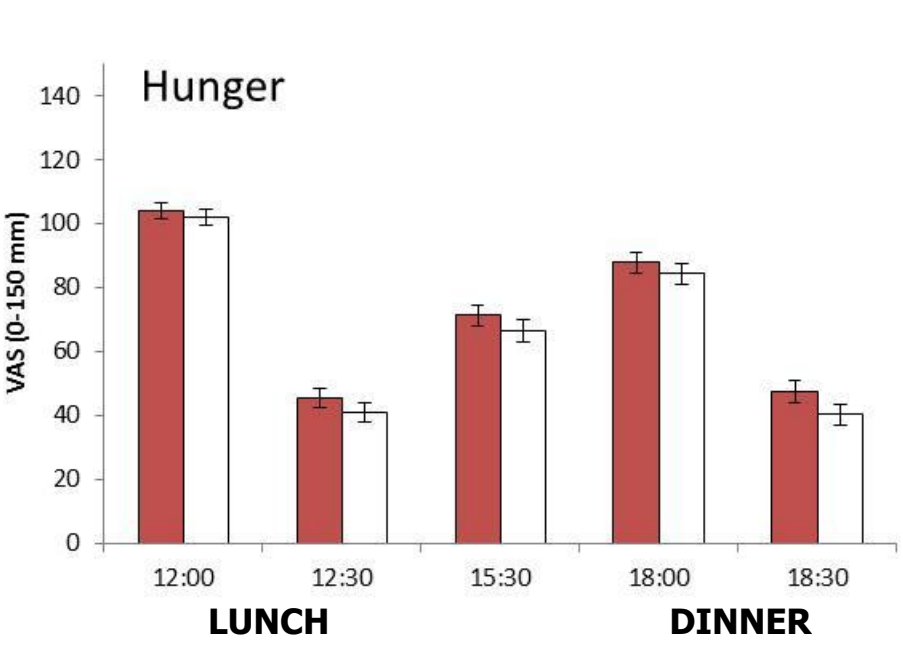
High meat protein lunch

Normal lunch



Results – appetite measurements

Not in line with the reduced energy intake!



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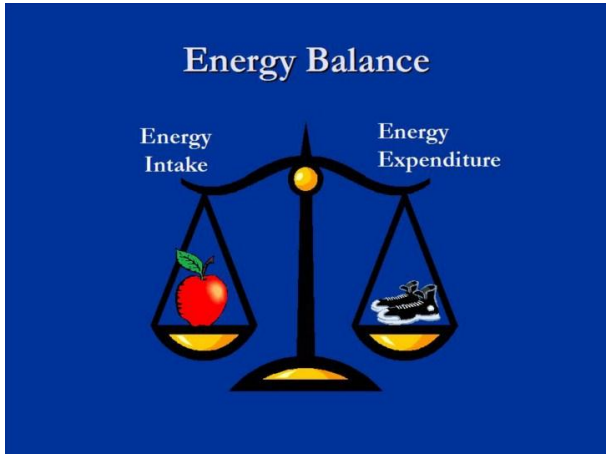
Our results in the obesogenic world

per day -250 kJ (≈60 cal)

↓

per year **2.9 kg weight loss**



How much protein for lunch?

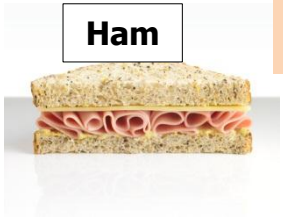
Increase meat intake from

Pork loin

1 slice ⟶ 3½ slices

OR

Ham



3 slices ⟶ 7 slices

Suppress energy intake at dinner

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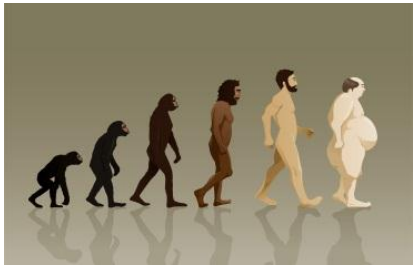
New healthy meat products

PROBLEM

Global burden of obesity



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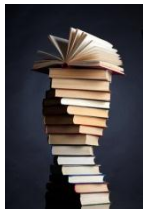

Proteins promote satiety

Long term satiety studies

Combination of meat protein & dietary fibre

New meat products or formulations with satiating effects ?

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Thank you for your attention!

Poster discussion - board #7

Today 15:00 - 15:30

DMRI contributions to ICoMST 2012

Financial support of the study: the Pig Levy Fund

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it's all about innovation