

FISA COACH CONFERENCE -VARESE- NOVEMBER 2011

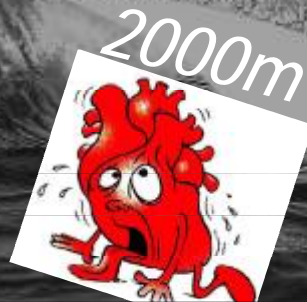
**DOES A TRADITIONAL LACTATE-POWER
CURVE STILL SUIT MODERN COACHING
DEMANDS?
THE ITALIAN EXPERIENCE"**

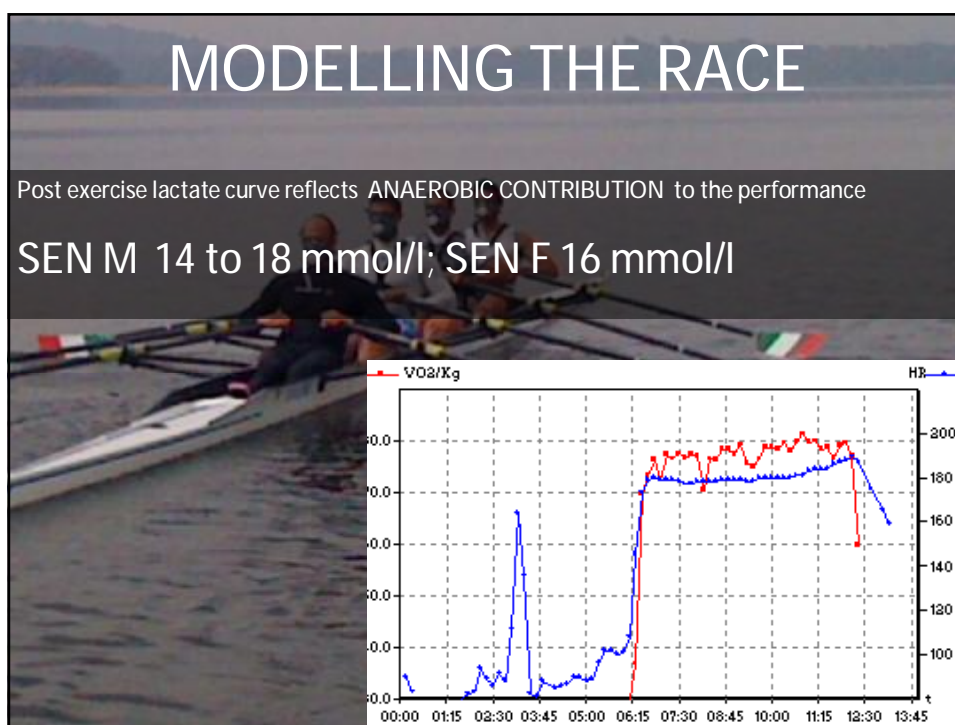
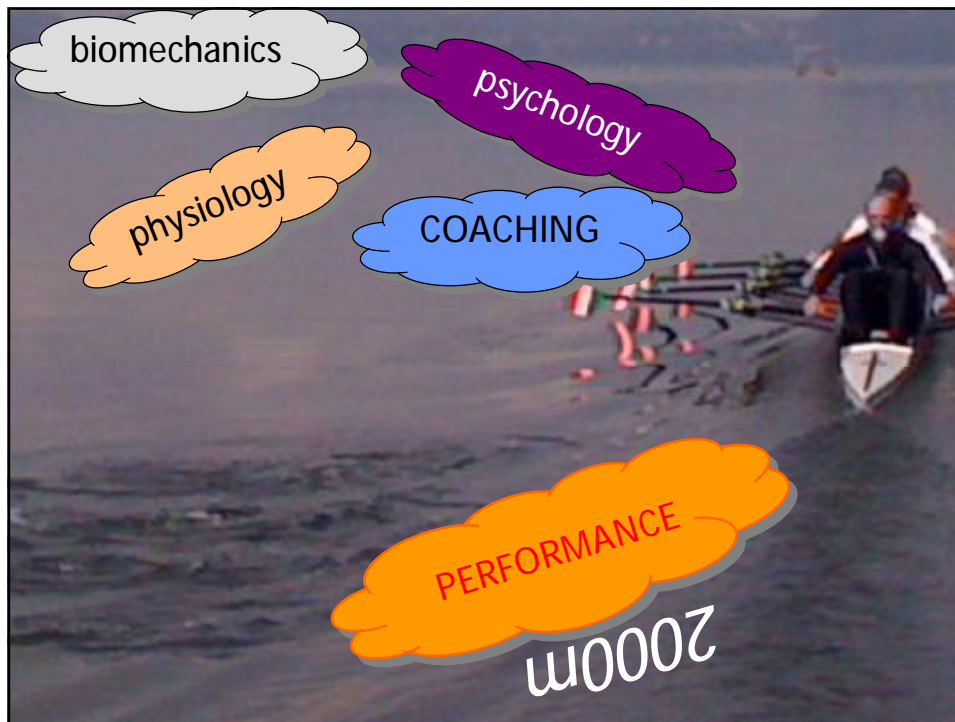
*Clara Mauri, MD
Italian Rowing Federation (FIC)
Italian National Olympic Committee - Rome*

What are we talking about?

Laughing is Like Rowing a Boat

Fry says, laughing 100 to 200 times per day is the cardiovascular equivalent of rowing for 10 minutes."





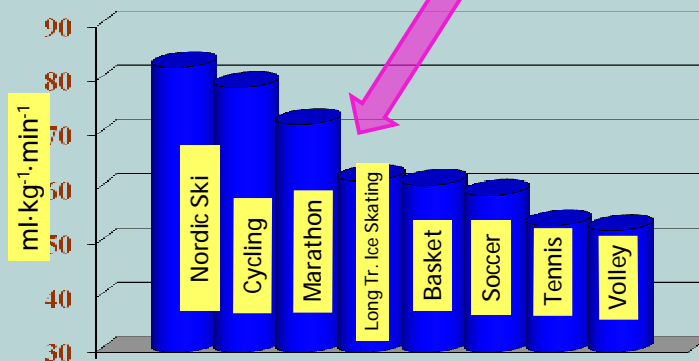
MODELLING THE RACE

Cyclic Sport:

Repetition of stereotyped motory pattern

(Scotton, 2003)

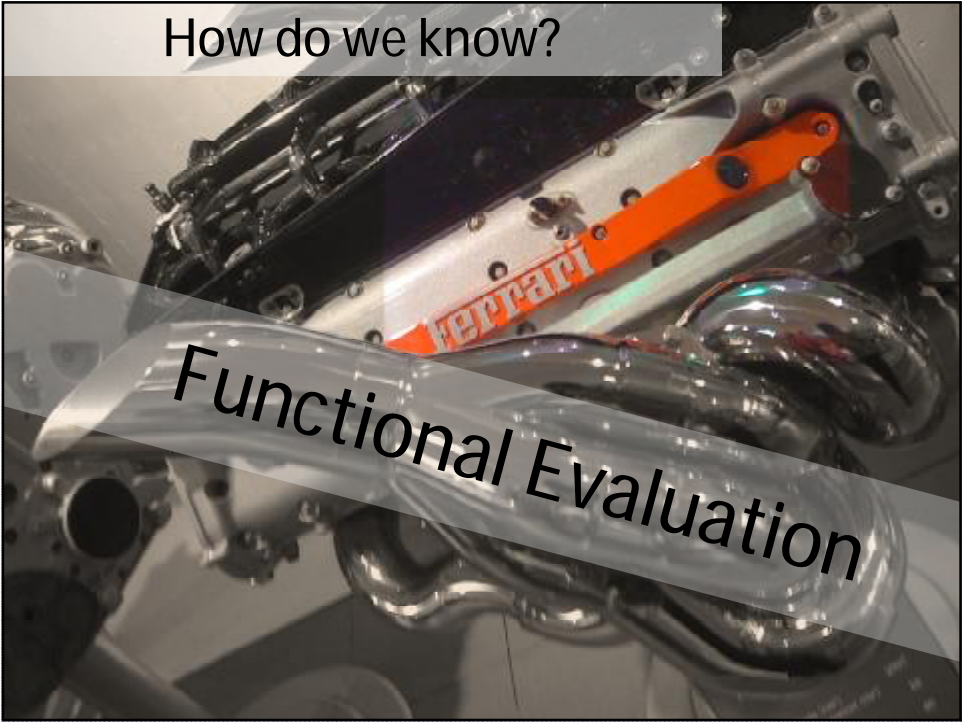
MODELLING THE RACE



A close-up photograph of a Ferrari Formula 1 engine. The engine is silver with orange accents, including a prominent orange bar with the 'Ferrari' logo. It features complex, polished metal exhaust pipes and various mechanical components.

SUCH AN EFFORT REQUIRES
A VERY GOOD ENGINE

DO OUR ATHLETES HAVE THE
RIGHT ONES?

A close-up photograph of a Ferrari Formula 1 engine, identical to the one in the first image, showing the silver body, orange 'Ferrari' branding, and complex exhaust system.

How do we know?

Functional Evaluation

FUNCTIONAL EVALUATION: AIMS

MONITORING THE ATHLETES
PHYSICAL FITNESS
MONITORING TRAINING
EFFECTS
MONITORING INTERNAL
LOAD
INDIVIDUALIZE TRAINING
LOADS AND RECOVERY TIME



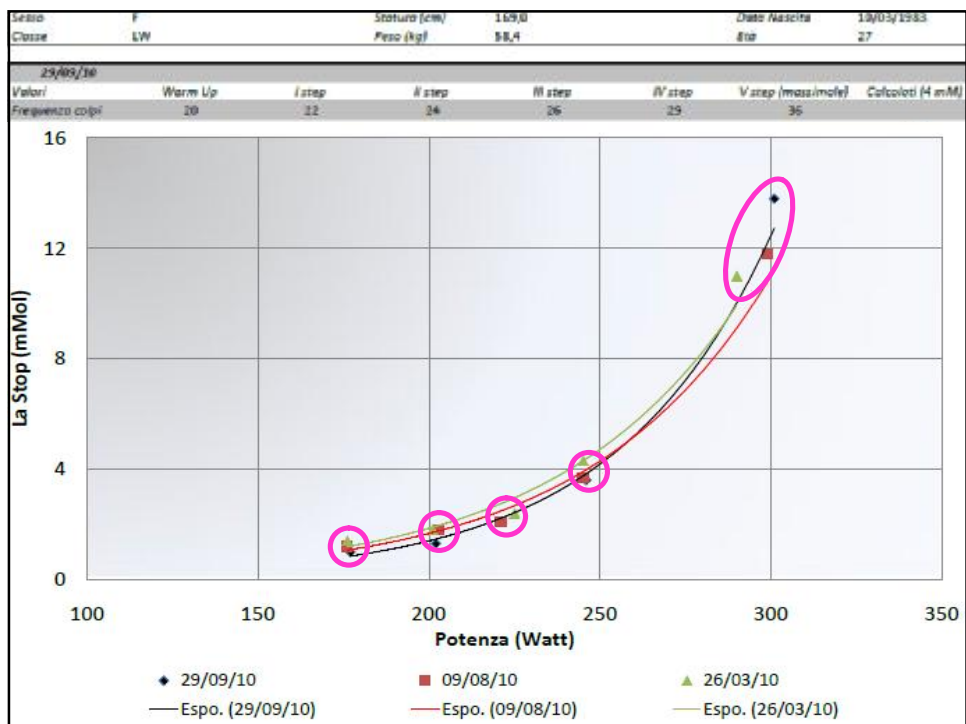
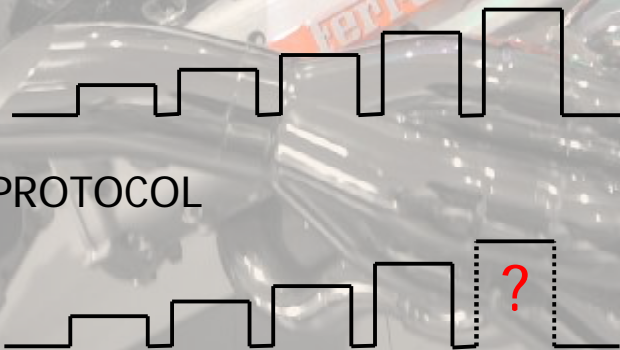
FUNCTIONAL EVALUATION: STEP BY STEP


- SELECTING A SPECIFIC PROTOCOL
- CAREFULLY COLLECTING DATA
- LONGITUDINAL Vs. ORIZONTAL MONITORING
- INDIVIDUALIZING WORKLOAD FOR THE FOLLOWING TRAINING BLOCK

PROTOCOLS

LA-W CURVE (LA, W, HR, V'O₂...)

OUR PROTOCOL





PROTOCOLS: DISCUSSING DATA

THAT IS HOW TO USE THE LA-W CURVE

HOW TO SET THE STEP LOAD

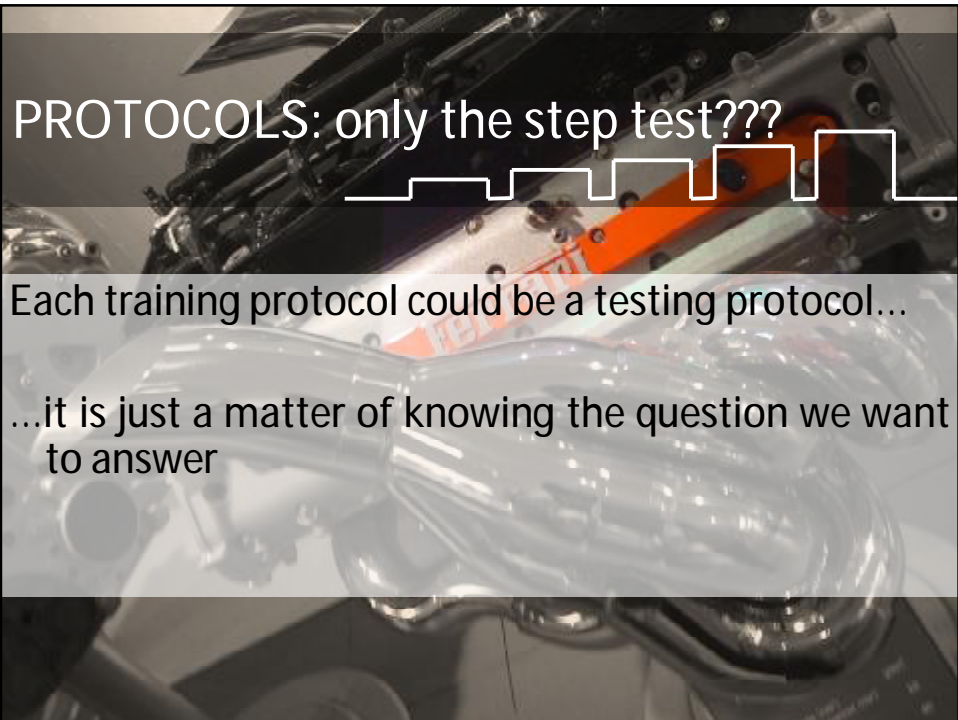
SKIPPING A STEP WHEN LACTATE IS TOO HIGH (ARE YOU INTERESTED IN THE FINAL ALL-OUT OR IN THE CURVE SHAPE)

THRESHOLDS (LACTATE OR NOT?)

WHAT DO WE USE LACTATE FOR

INDIVIDUALIZING THE TRAINING LOADS

This is an overview just to give an idea, each one of these aspects will be properly discussed



PROTOCOLS: only the step test???

Each training protocol could be a testing protocol...

...it is just a matter of knowing the question we want to answer

INTERNAL WORKLOAD

Between subjects

Within subject between sessions



WHY TESTING?

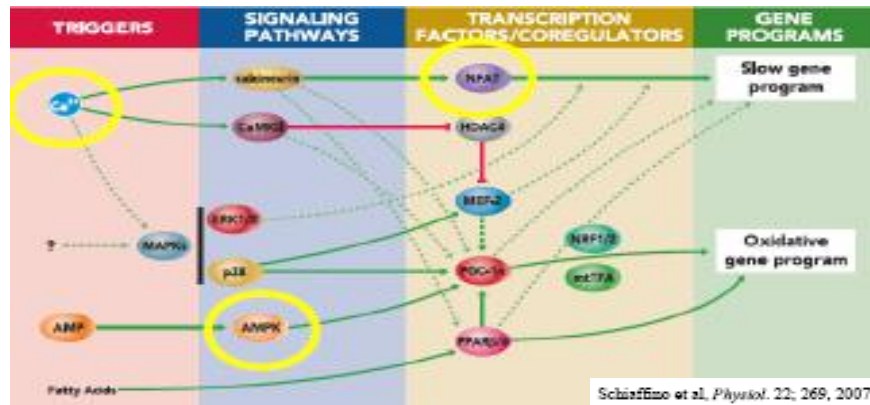
Precise informations

Monitoring adaptations

Workload individualization

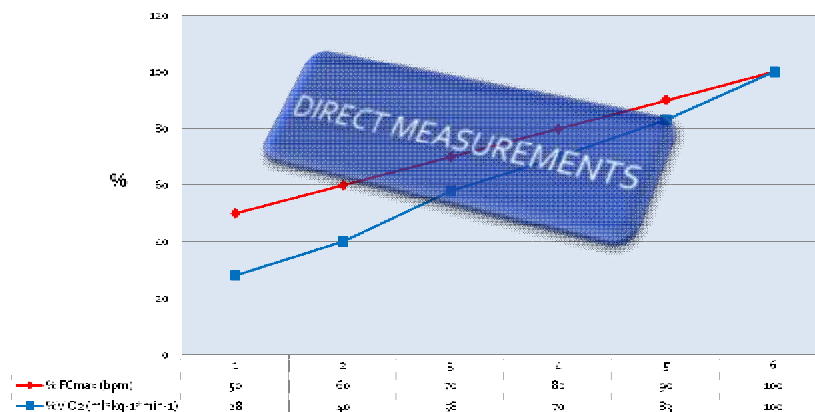
**MONITORING TRAINING
TOOLS EFFECTIVENESS**

How does neural activity control muscle genes?



MUSCLE PLASTICITY

Relazione %FC max-%V'O₂ max



38. Åstrand P-O, Rodahl K, Dahl HA, et al. Textbook of work physiology: physiological bases of exercise. Windsor (Canada): Human Kinetics, 2003

