

Working Group I Summary

Nomenclature

need to re-define our nomenclature due to increased complexity of protocols
consensus agreement (?):

try to move to “pathway” related nomenclature:

- N(ADH) linked pathway capacity

- F(fatty acid oxidation) linked pathway capacity

- S linked pathway capacity

Joint publications

nomenclature publication: special issue in Mitochondrium – terminology issues

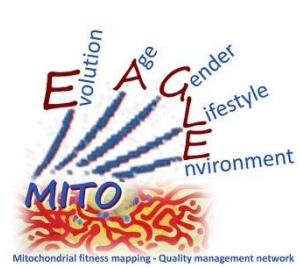
normalization publication

how to get it up and running (?)

- selection of terms

- collect on a website input

- 1st respiratory states



Working Group I Summary

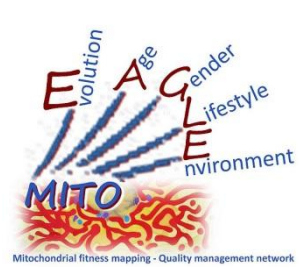
MITOEAGLE data management system

MITOEAGLE database: collect as much data as possible on mitochondrial physiology
who has the right to deliver data – questionnaire send out
which data would we like to get from published studies - raw data
put in protocol & experimental sequence to make it comparable to published data
- views are presented
would that be a solution for already published literature ?

Database for original files (Michael): upload DatLab (open to other platforms) files,
term search is included,
original data are displayed + protocol used
values under marks can be retrieved – statistics

Data management in a system biology approach (Pablo):
content management system: database and communication to the webpage
integrated analysis tools

Laboratory database (Marko):
track experimental flow (isolation, chemicals, animal history, different
measurement on one sample)



Working Group I Summary

Dissemination

university press release ?

web page – www.mitoeagle.org

first page will be a more general page giving an overview on the COST action

facebook presence and Twitter

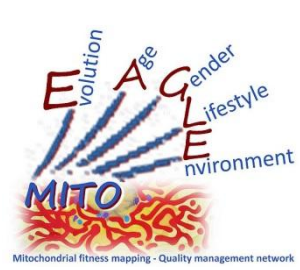
flyer: core group will support in answering the questions (14) necessary for the flyer
produced February 2017, available March 2017

special issue in Mitochondrium – terminology issues ?

Inclusiveness

attract people from specific countries by supporting them to come to events

% of budget (- not fixed yet)



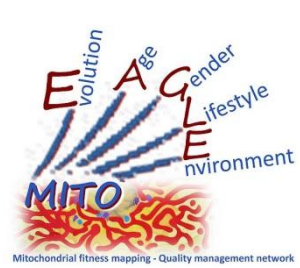
Working Group I Summary

Training

STSM: 1st funding period 6 grants were awarded
2nd funding period: call 01.05.2017
increase budget 35.000 Euro force long term stays
more host laboratories required (MC members)
use STSM to work on issues: compare normalization methods

Sommer School Obergurgl 2017 with the MiPsociety, supported by Medical University IBK (?)
introductory lectures
sessions on specific topics – SOPs

Mentoring program – define it in Barcelona?



Working Group I Summary

Up-coming events

Barcelona: 21 -23 March

science meeting 1st day: talks 10 + 5 min

WG meeting (joined) 2nd day

MC meeting 3rd day

flat rate ???

normalization session

Sommer School Obergurgl: 23 – 30, July 2017

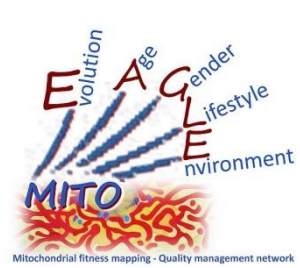
November 2017: MiP conference together with MC meeting 15 -17.11.2017

2 days MiP conference

3rd day WG and MC meeting

Funding: search for companies (spreadsheet)

General remarks



Working Group I Summary

Guidelines and SOPs – WG 2/4 already started

spread sheets are prepared in each WG try to include as many relevant data as possible

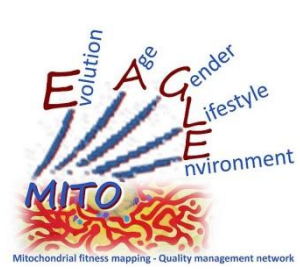
- specimen
- details on preparation
- details on measurement parameters
- data evaluation.....

Qualitative and quantitative evaluation

- quality control –
 - reference samples
 - titration of substrates
- reference protocols
- instrumental platform comparison: Michael's approach could help*

Mammoth task to make the EAGLE fly





Working group I – Outlook

SOPs

Methods – details should be included

isolation/preparation procedures

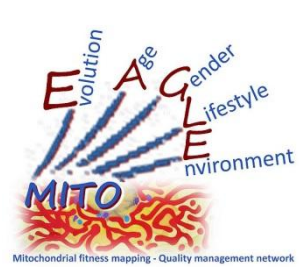
define standard media for all steps

define protocols for analysis of mitochondrial respiratory function

Cohort/sample

animal models: implement the EU guidelines on animal work (anesthesia, season, diet)

define cohort – rigorous documentation



Working group I – Outlook

SOPs

Data management

make raw data available?

normalization of data

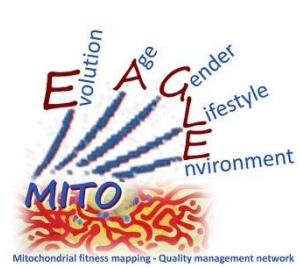
- mg tissue – wet weight/dry weight – can we transform from one to the other
- cell number, cell size
- mitochondrial density, volume
- mt-marker

data evaluation

- mean/median
- statistical evaluation

data reporting

- terminology/definitions



Working Group I How to reach the goals

MITOEAGLE data management system

TG1.5 Knowledge management system

TG leaders: Drinnan Michael UK / Plattner Christina AT

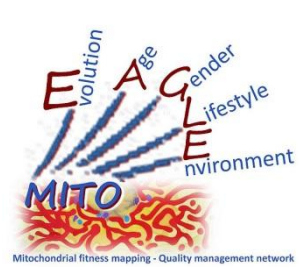
database including protocols, references, terminology

based on bioblast

data management system implemented in the daily routine

Talk of Marko Vendelin

- strategy implemented in a user requirement document



Working Group I How to reach the goals ?

Guidelines

Joint Publications

TG1.1 Coupling states and coupling control ratios: consensus statements

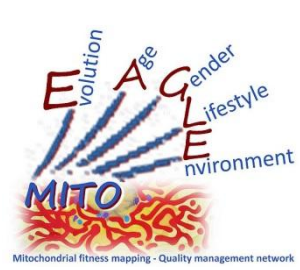
TG leaders: Renner-Sattler Kathrin DE / Gnaiger Erich AT / Hoppel Charles L US

TG1.2 SUIIT protocols: nomenclature consistent with concept of database

TG leader: Doerrier Velasco Carolina A AT, Gnaiger Erich AT

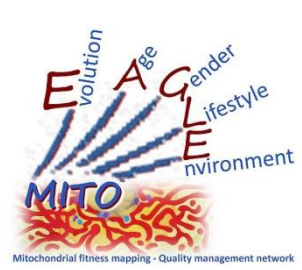
TG1.3 Experimental details in SUIIT

TG leaders: Chicco Adam J US/ Hickey Anthony J NZ/ Doerrier Velasco Carolina A AT



Working group Definitions

Many analyses lack statistical power within a single study. Statistical combination of different studies is often difficult due to lack of methodological standardization and harmonization.



Working group Nomenclature