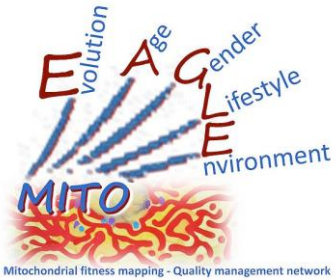
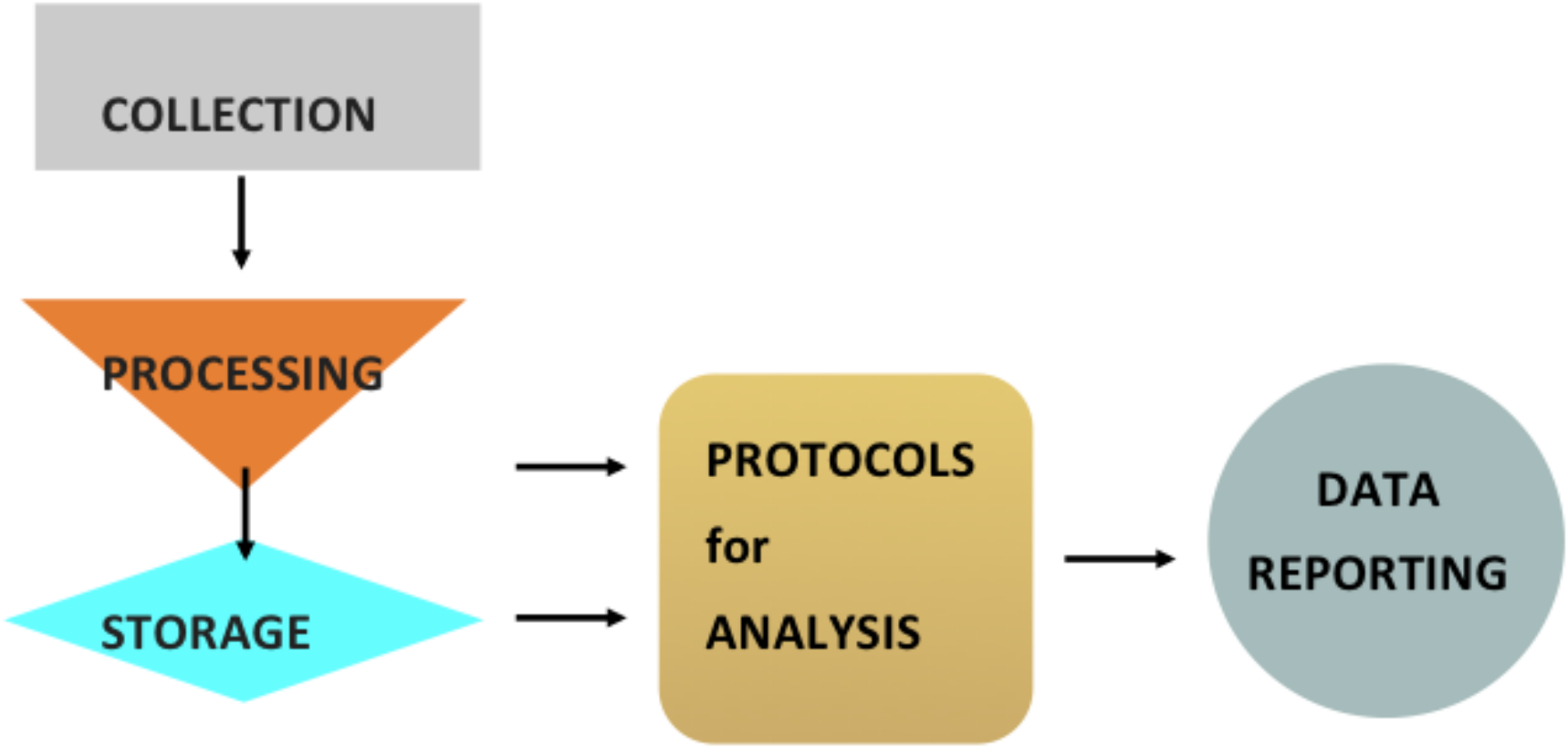


WG4

MITOEAGLE DATA REPOSITORY FOR BLOOD CELLS AND CULTURED CELLS

BLOOD TASKS


COLLECTION
PROCESSING
STORAGE
PROTOCOLS
for
ANALYSIS
DATA
REPORTING

BLOOD cells

Each step of blood cells purification and analysis can be a source of variability.

We need to be aware of the influence of our choices in the experimental design to explain differences/similarities between different researchers or laboratories, first than between cellular systems.
To reach this goal the work done in the each laboratory is of enormous value, also in a prospective of harmonization.

BLOOD cells

PBMCs and Platelets:

i)choice of the most appropriate Vacuettes anticoagulant treatment (Slawomir Michalak);

ii) different media (PBS, PBS without Ca++, RPMI) are currently used for cells purification and washing steps. We suggest to perform some systematic comparisons between media, or in any case specify the buffer used (Brian Irving - PBS, Zuzana Sumbalova - PBS no Ca++, Elisa Calabria - RPMI).

iii) Higher sensitivity and specificity in cell counts can be of great help to verify the need of data correction for the contribute of contaminant cells to the level and pattern of oxygen consumption. Thus the collection of details on this aspect is strongly suggested to compare data from different laboratories.

BLOOD cells

iv) the development of reference protocols (RPs) (Zuzana and Carolina) is pivotal to improve the quality of physiological analysis of mitochondrial respiratory capacity. It allows also the comparison of different protocols to a common reference, giving us the opportunity to select data that we can compare.

v) the development of new cell permeable substrates (succinate and malonate) (Eleonor Åsander Frostner) opens the pathways for new assays in intact cells: not only the activity of complex II, but also integrity of the cellular membrane and cellular viability.

BLOOD cells

PBMCs and Platelets:

We need more discussion about…normalization and cell type specificity (T-cells sub-populations, monocytes and macrophages).

Can we think about a ***publication?***

We should start collecting data for comparison of procedures:
Routine, ET capacity?