

# SESSION 4 highlights/breakthroughs

Production scale:

From laboratory PBR that simulate outdoor condition to 1 ha scale plant for validation and production, passing through medium size PBR

New PBR concept coming:

Foam photobioreactor

Streams:

CO<sub>2</sub> capture from air

Medium recycling

Water treatment

Strains:

New: Starch less mutant

GMO

*Botryococcus*

Old: *Arthrospira* - *Chlorella* – *Nannochloropsis* - *Phaeodactylum*

# SESSION 4 challenges for future research

Production scale:

Increase the scale to 5-10 ha

PBR:

Increase PE from the lab to outdoors

Reduce capital cost

Cultivation:

Contamination

Biofilm

Stability – standard production quality

Production cost competitive to products on the market

Harmonisation of methodologies and unit measurement