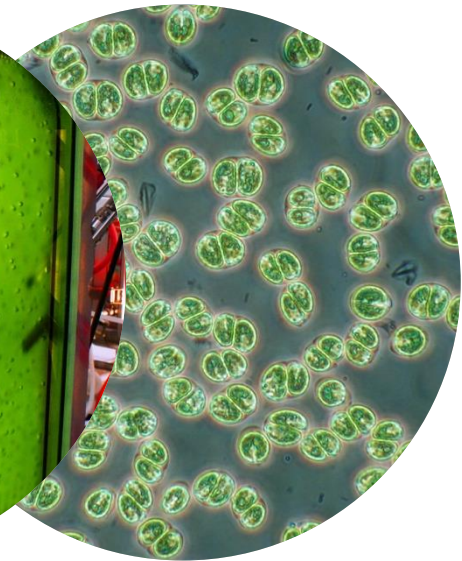
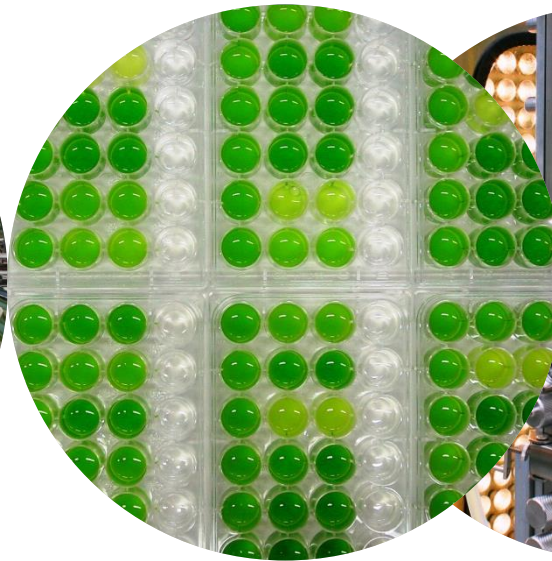


Metabolic modelling of *Nannochloropsis gaditana*

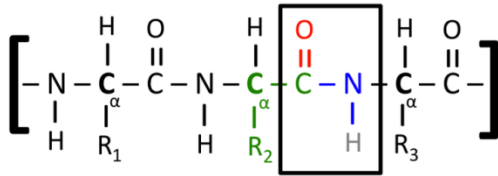
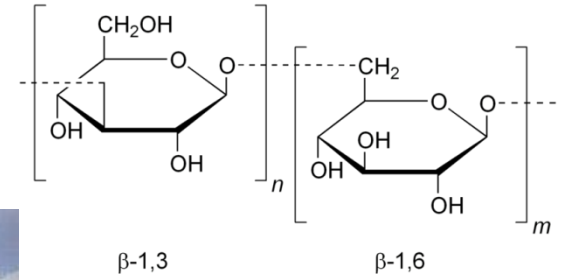
MIRACLES (FP7 EU project)

14-04-14, Jorijn Janssen

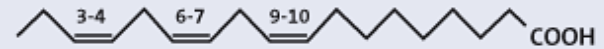
*Supervisors: Dirk Martens, Packo Lamers and Rene Wijffels
Wageningen University, Bioprocess engineering (BPE)*



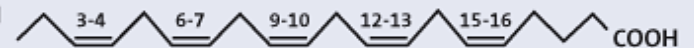
Why research on microalgae?



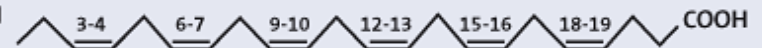
α -Linolenic acid
(ALA) (18:3)



Eicosapentanoic acid
(EPA) (20:5)



Docosahexanoic acid
(DHA) (22:6)

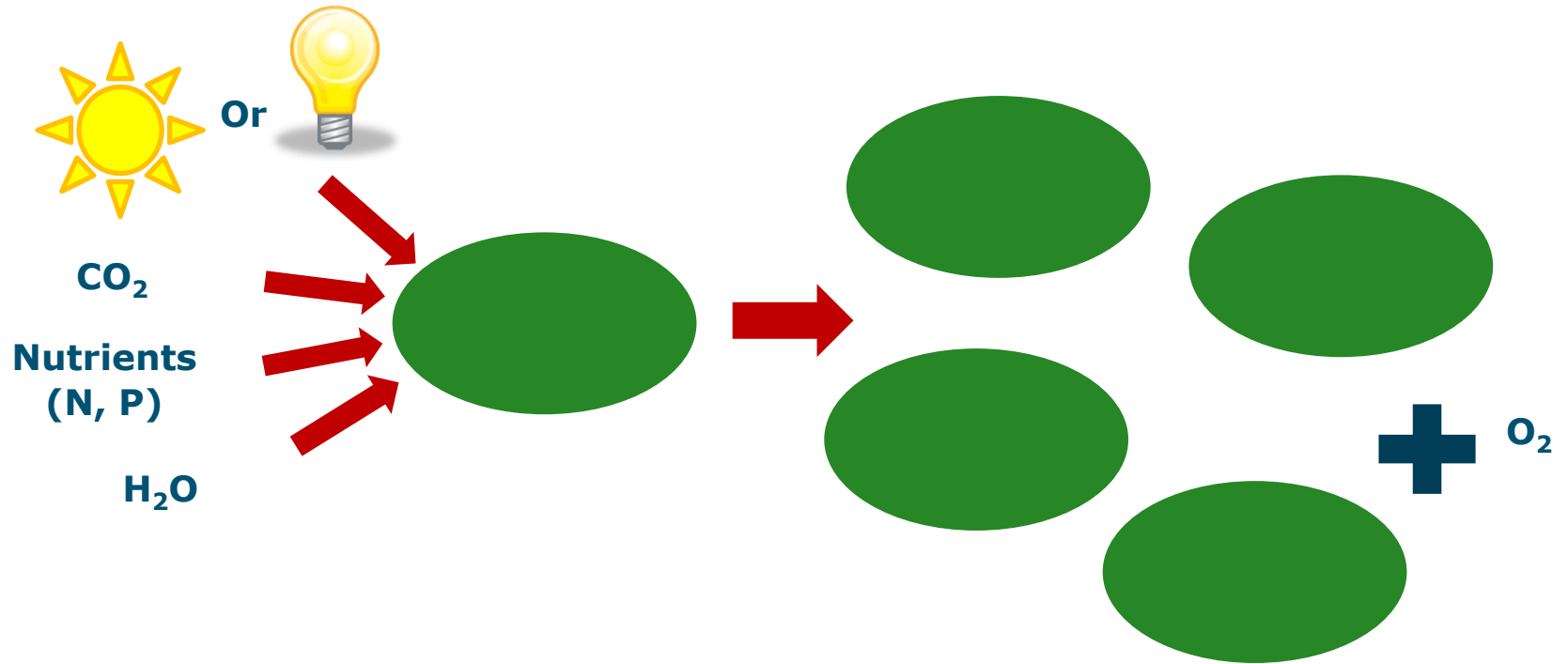


Microalgae compared to conventional agricultural crops

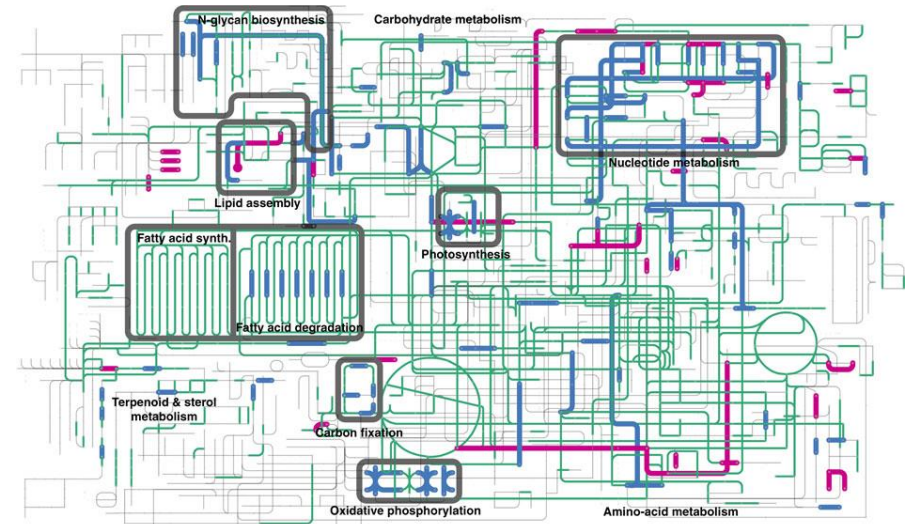
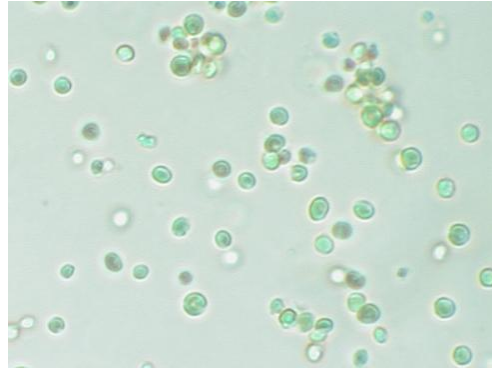
Feedstock	Oil Productivities
	L / ha /year
Corn	172
Soybeans	446
Sunflower	386
Rapeseed	1 250
Oil palm	5 950
Jatropha	1 892
Microalgae	
PE 3%; 30% lipids; NL	12 300
PE 3% ; 30% lipids; Bonaire	25 800
PE 6% ; 30% lipids; Bonaire	52 000

Potential

Microalgal growth

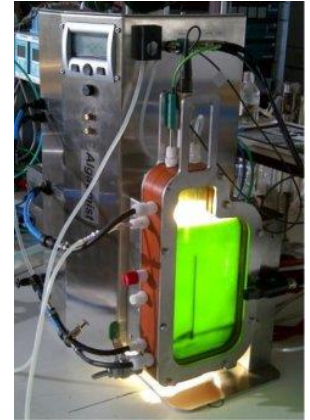
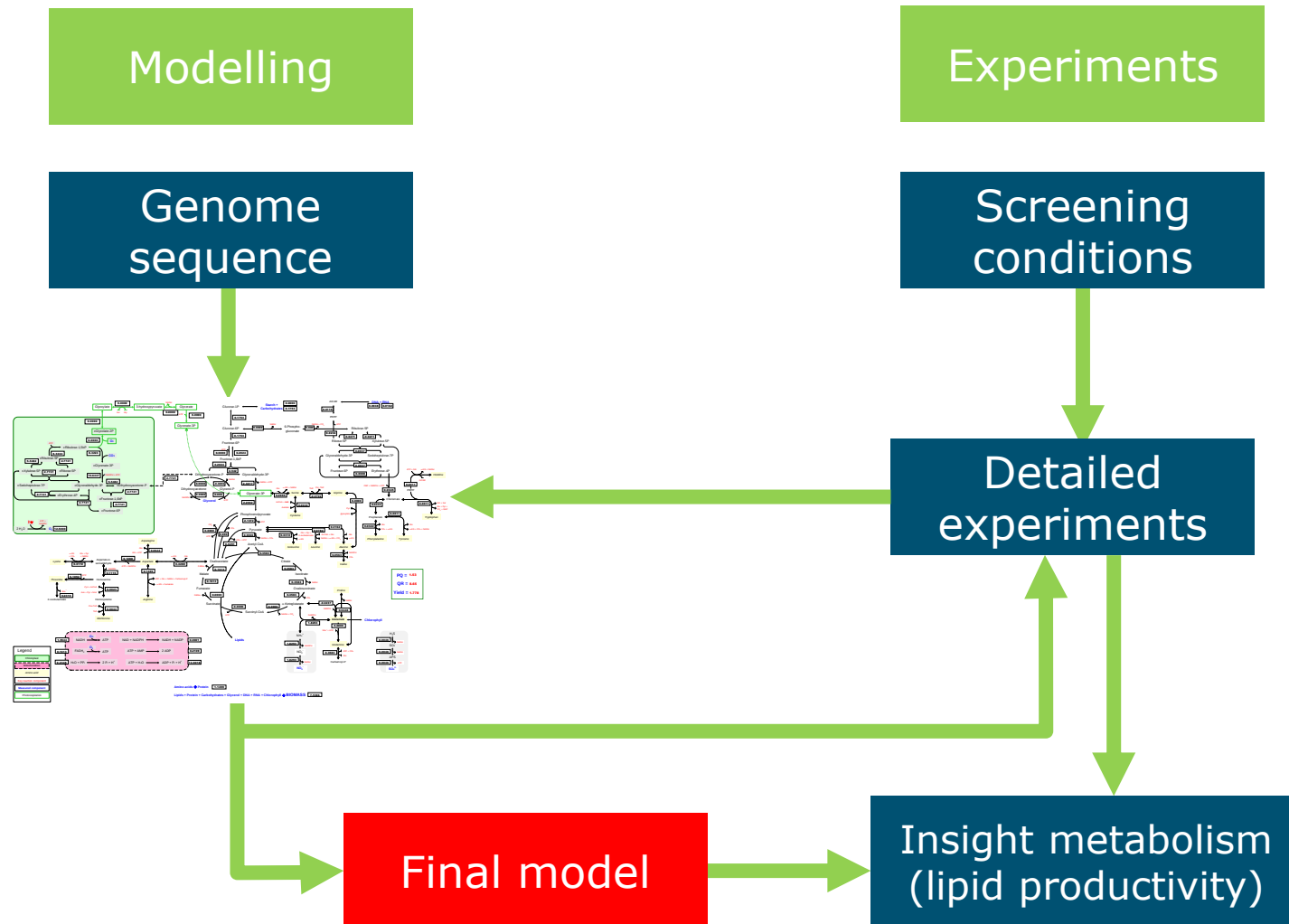


Microalgae *Nannochloropsis gaditana*



Radakovits et al. 2012

Metabolic model of *Nannochloropsis gaditana*



Acknowledgement

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