

Fatty acid dynamics during viral infection of *Phaeocystis globosa*

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Table S1. Bulk fatty acids (carbon number:double bonds) in the initial composition (average of all cultures at 0 h), the non-infected cultures (controls) and the infected cultures at 24 h p.i. and 48 h p.i. and in PgV. Presented as percentage with standard deviation between two replicate cultures, percentage with the 95% confidence interval and the absolute concentration ($\mu\text{g l}^{-1}$). n.d. = not detected.

	Control			Infected		PgV
	Initial	24 h p.i.	48 h p.i.	24 h p.i.	48 h p.i.	
14:0	3±0.2	5±0.5	8±4	6±0.1	9±2	8 2x10 ⁻³
	3±0.3	5±0.7	8±6	6±0.1	9±3	
	0.1±0	0.3±0.1	2.0±1	0.4±0	0.4±0.1	
16:0	21±4	20±6	10±0.2	16±2	22±2	43 1x10 ⁻²
	21±6	20±8	10±0.3	16±3	22±3	
	0.6±0.1	1±0.7	2±0.6	1±0.1	1±0.1	
18:0	8±1	8±5	2±1	4±1	5±2	25 7x10 ⁻³
	8±1	8±7	2±1	4±1	5±3	
	0.2±0	0.4±0.4	0.4±0.1	0.2±0.1	0.2±0.1	
18:1ω9	15±0.8	15±3	15±2	17±1	21±3	23 7x10 ⁻³
	15±1	15±4	15±3	17±1	21±4	
	0.4±0	0.7±0.2	3±0.3	1±0.0	0.9±0.1	
18:3	8±1	5±8	11±1	9±0.3	9±0.3	n.d
	8±1	5±11	11±1	9±0.4	9±0.4	
	0.2±0	0.2±0.3	3±0.4	1±0.0	0.4±0	
18:4	16±0.1	22±5	20±1	19±0.7	15±2	n.d
	16±0.1	22±7	20±1	19±1	15±3	
	0.5±0	1±0.7	5±1	1±0.1	0.7±0.1	
18:5	6±0.4	3±4	9±0	5±1	4±2	n.d
	6±0.6	3±6	9±0	5±1	4±3	
	0.2±0	0.1±0.1	2±0.5	0.3±0.1	0.2±0.1	
20:5	6±0.4	3±5	8±2	5±0.3	5±2	n.d
	6±0.6	3±7	8±3	5±0.4	5±3	
	0.2±0	0.1±0.2	1.9±0.8	0.4±0	0.2±0.1	
22:6	16±2	18±3	17±4	18±2	10±1	n.d
	16±3	18±4	17±6	18±3	10±1	
	0.5±0.1	0.9±0.5	4±0	1±0.1	0.4±0.1	
PUFA	53±4	51±9	65±1	57±4	43±0.5	n.d
	53±6	51±12	65±1	57±6	43±0.7	
	2±0.2	2±0.6	15±3	4±0.3	2±0	
MUFA	15±0.8	15±3	15±2	17±1	21±3	23 7x10 ⁻³
	15±1	15±4	15±3	17±1	21±4	
	0.4±0	0.7±0.2	3±0.3	1±0	0.9±0.1	
SFA	32±5	34±11	20±4	26±3	36±2	77 2x10 ⁻²
	32±7	34±15	20±6	26±4	36±3	
	0.9±0.1	2±1	5±2	2±0.2	2±0.1	

Table S2. Average percentage of monogalactosyldiacylglycerol (MGDG) and digalactosyldiacylglycerol (DGDG) fatty acid combinations (carbon number:double bonds) in the initial composition (average of all cultures at 0 h), the non-infected *Phaeocystis globosa* cultures (controls) at 24 h p.i. and 48 h p.i., in the infected cultures (infected) at 24 h p.i. and 48 h p.i. and in PgV. Errors represent the standard deviation between two replicate cultures. n.d. = not detected.

	MGDG						DGDG					
	Initial	Control 24 h p.i.	Control 48 h p.i.	Infected 24 h p.i.	Infected 48 h p.i.	Virus	Initial	Control 24 h p.i.	Control 48 h p.i.	Infected 24 h p.i.	Infected 48 h p.i.	Virus
28:0	2 ±0.4	1±0	1±0.2	2±0	3±0.5	15±0.2						
30:0	2±1	1±0.2	1±1	1±1	1±2	13±1						
30:1	1±0.1	0.3±0	0.2±0.1	1±0	1±0.1	2±0.1						
30:2	0.2±0	0.1±0	n.d	0.1±0	0.2±0	0.2±0.1						
32:1	10±2	10±3	8±0.2	12±1	17±2	48±1	8±1	11±0.4	13±3	8±1	8±0	100±0
32:2	1±0.2	1±0	1±0.1	1±0.1	1±0	1±0	5±1	9±0.5	9±0.1	5±0.1	3±0.2	n.d
32:3	2±0.3	2±0.2	2±0.2	2±0.2	2±0.4	2±0.4	5±1	5±0.4	5±0.1	6±0.1	7±0.2	n.d
32:4	5±1	5±0.2	5±0.2	5±1	4±0.5	1±0.2	2±0.1	2±0	2±0.1	4±0.1	3±0.3	n.d
32:5	2±0.3	1±0.1	1±1	2±0.2	1±0.2	n.d	3±0.2	3±0.3	2±0	6±0.1	7±0.4	n.d
34:1	2±1	6±1	6±3	6±0.3	5±1	18±0.1	4±1	7±2	6±0.1	5±1	5±0.4	n.d
34:2	0.2±0	1±0.1	0.5±0.3	0.3±0	0.3±0.1	0.4±0.1	3±1	7±0.2	5±0.1	3±0.3	3±0.3	n.d
34:3	0.4±0.1	1±0	1±0.1	0.5±0	0.4±0.1	0.2±0	3±0.1	4±0.2	5±0.3	3±0	3±0.1	n.d
34:4	1±0.2	2±0	2±0.1	1±0.1	1±0	n.d	2±0.1	4±0.2	4±0.4	3±0.2	2±0.5	n.d
34:5	1±0.1	2±0.2	2±0.2	2±0.3	1±0.1	n.d	2±0.4	3±0.2	3±0	3±0.3	3±0.2	n.d
34:6	1±0.1	1±0.1	1±0.3	1±0.1	1±0.1	n.d	33±2	25±1	27±3	30±1	27±1	n.d
34:7	2±0.1	1±0.4	1±1	1±1	1±0.1	n.d						
34:8	0.3±0.1	0.2±0.1	0.1±0	0.2±0	0.3±0	n.d						
34:9	0.3±0.1	0.2±0	0.3±0.1	0.3±0	0.2±0	n.d						
36:2	0.2±0.1	1±0.2	1±1	1±0	0.5±0.2	n.d	2±0.4	2±0.3	2±0.2	2±0.1	2±0.1	n.d
36:3	0.1±0.1	0.4±0.1	0.4±1	0.2±0	0.2±0	n.d	0.5±1	2±0.3	1±0.2	1±0.2	1±0.1	n.d
36:4	0.2±0.2	1±0.2	0.5±1	0.4±0	0.3±0	n.d	0.4±0	1±0.1	1±0	1±0.1	1±0.2	n.d
36:5	1±0.4	2±0.1	2±0.1	1±0	1±0.1	n.d						
36:6	2±2	2±0.1	2±2	2±0	2±0.3	n.d						
36:7	1±0.1	4±0.1	4±2	3±0	3±0.2	n.d						
36:8	6±2	11±1	11±3	9±0.4	7±0.1	n.d						
36:9	29±3	24±2	24±5	25±1	28±1	n.d						
36:10	30±2	20±1	22±5	23±3	19±1	n.d	28±2	15±1	15±0.5	21±1	25±0.3	n.d
PUFA	82±4	79±5	81±6	78±2	71±0.4	2±0.6	78±3	63±1	65±4	78±2	80±0.1	0±0
MUFA	14±3	19±4	17±3	20±1	25±2	70±0.6	22±3	37±1	35±4	22±2	20±0.1	100±0
SFA	4±0.9	2±0.2	2±0.5	3±1	4±2	28±1	0±0	0±0	0±0	0±0	0±0	0±0

Table S3. Average percentage of sulfoquinovosyldiacylglycerol (SQDG) fatty acid combinations (carbon number:double bonds) in the initial composition (average of all cultures at 0 h), the non-infected *Phaeocystis globosa* cultures (controls) at 24 h p.i. and 48 h p.i. and in the infected cultures (infected) at 24 h p.i. and 48 h p.i. Errors represent the standard deviation between two replicate cultures. n.d. = not detected.

	Initial	SQDG			
		Control 24 h p.i.	Control 48 h p.i.	Infected 24 h p.i.	Infected 48 h p.i.
32:1	40±11	43±2	42±1	46±14	51±2
36:7	60±11	57±2	58±1	54±14	49±2
PUFA	60±11	57±2	58±1	54±14	49±2
MUFA	40±11	43±2	42±1	46±14	51±2
SFA	0±0	0±0	0±0	0±0	0±0

Table S4. Average percentage of phosphatidylcholine (PC) and phosphatidylglycerol (PG) fatty acid combinations (carbon number:double bonds) in the initial composition (average of all cultures at 0 h), the non-infected *Phaeocystis globosa* cultures (controls) at 24 h p.i. and 48 h p.i., in the infected cultures (infected) at 24 h p.i. and 48 h p.i. and in PgV. Errors represent the standard deviation between two replicate cultures. n.d. = not detected.

	PC						PG					
	Initial	Control 24 h p.i.	Control 48 h p.i.	Infected 24 h p.i.	Infected 48 h p.i.	Virus	Initial	Control 24 h p.i.	Control 48 h p.i.	Infected 24 h p.i.	Infected 48 h p.i.	Virus
32:4	17±2	14±2	15±2	15±1	20±3	5±1						
34:4	5±0.1	6±0.3	6±1	7±1	9±0.2	7±0.3						
34:5	7±0.1	5±1	6±0.4	7±1	11±0.2	3±0.1						
34:7	n.d	n.d	n.d	n.d	n.d	1±0.1						
36:4	1±0.1	2±0.1	2±0.1	1±0.1	2±0.2	1±0						
36:5	6±0.2	6±0.1	6±0.2	6±0.2	6±1	3±0.1						
36:6	9±0.4	10±0.5	9±1	10±0.5	8±1	2±0.1						
36:7	1±0.2	1±0.1	1±0.1	1±1	2±0.4	2±0	36±3	31±1	39±4	29±0.1	25±2	n.d
36:8	n.d	n.d	n.d	n.d	n.d	2±0.4						
36:9	n.d	n.d	n.d	n.d	n.d	3±1						
36:10	n.d	n.d	n.d	n.d	n.d	1±0.2						
38:4	n.d	n.d	n.d	n.d	n.d	1±0.1						
38:6	4±0.1	6±0.2	6±0.1	8±2	7±3	4±0.2	60±2	62±1	57±4	67±1	69±1	86±0.5
38:7	0.5±0.2	1±0.2	0.5±0.2	1±0.4	1±0.3	1±0.1						
38:8	1±1	1±0.4	1±1	1±0.3	2±1	1±0.5						
38:9	3±1	2±0.4	2±0.2	2±0.4	2±1	2±0.2						
38:10	n.d	n.d	n.d	n.d	n.d	1±0.2						
40:6	1±1	2±1	1±1	1±1	1±1	1±0.2	4±1	5±0.5	3±0	4±1	6±1	14±0.5
40:7	2±0.3	3±0.5	3±0.3	2±0.1	1±0.3	2±0.2						
40:8	1±0.1	1±0	1±0	1±0	1±0.1	1±0						
40:9	4±0.3	4±1	4±0.2	3±1	3±1	5±0.1						
40:10	12±1	11±0.4	13±0	10±1	9±2	17±1						
40:11	7±0.4	4±0	3±0.2	6±1	8±1	9±0.1						
42:11	4±0.1	4±0.1	5±0.3	3±1	2±0.3	5±0.3						
42:12	n.d	n.d	n.d	n.d	n.d	1±0.1						
42:13	n.d	n.d	n.d	n.d	n.d	3±1						
44:11	n.d	n.d	n.d	n.d	n.d	2±2						
44:12	15±1	17±1	16±2	15±1	8±0.4	15±2						
PUFA	100	100	100	100	100	100	100	100	100	100	100	100
MUFA	0	0	0	0	0	0	0	0	0	0	0	0
SFA	0	0	0	0	0	0	0	0	0	0	0	0

Table S5. Average percentage of diacylglyceryl hydroxymethyltrimethyl- β -alanine (DGTA) and diacylglyceryl carboxyhydroxymethylcholine (DGCC) fatty acid combinations (carbon number:double bonds) in the initial composition (average of all cultures at 0 h), the non-infected *Phaeocystis globosa* cultures (controls) at 24 h p.i. and 48 h p.i., in the infected cultures (infected) at 24 h p.i. and 48 h p.i. and in PgV. Errors represent the standard deviation between two replicate cultures. n.d. = not detected.

	DGTA						DGCC					
	Initial	Control 24 h p.i.	Control 48 h p.i.	Infected 24 h p.i.	Infected 48 h p.i.	Virus	Initial	Control 24 h p.i.	Control 48 h p.i.	Infected 24 h p.i.	Infected 48 h p.i.	Virus
32:5							2±0.3	1±0	2±0.2	2±0	2±0.1	1±0
34:1	9±1	10±1	11±1	10±1	12±1	27±7						
34:2	4±0.4	3±0.1	4±0.4	3±0.1	4±0	8±2						
34:3	9±0.4	9±0.2	9±1	8±0.4	9±0.2	9±1						
34:4	21±1	23±1	23±3	23±1	23±0.3	15±3						
34:5							61±1	61±1	51±0.1	64±0	71±0.4	66±1
36:2	1±0.1	1±0.1	2±0.2	1±0	1±0.2	n.d						
36:3	2±0.3	2±0	3±0.5	2±0.4	2±0.3	n.d						
36:4	12±1	12±2	15±6	11±2	12±1	14±1						
36:5	42±1	39±0.3	32±1	42±1	36±0.1	26±6						
36:6							4±0.3	4±0.1	6±0.4	3±0	2±0.5	2±0
38:6							2±0.2	9±1	12±0.4	3±0	2±0.5	2±0
38:10							7±0.3	3±0.2	5±0.1	5±0	6±1	7±0.5
40:11							11±0.3	9±0.5	10±1	10±0	8±1	19±2
44:12							13±1	13±0.5	16±1	13±0	9±1	3±3
PUFA	86±1	85±0.8	83±2	86±1	83±0.6	65±9	100	100	100	100	100	100
MUFA	14±1	15±0.8	17±2	14±1	17±0.6	35±9	0	0	0	0	0	0
SFA	0	0	0	0	0	0	0	0	0	0	0	0