

## Supplementary Tables

**Supplementary Table 1:** Summary of the morphological characterization data

ENMs	Physical Properties (SEM measurements)			Density (g/cm <sup>3</sup> )	Specific surface area (SSA) m <sup>2</sup> /g	Endotoxin (EU/mg)	Sterility (CFU/g)
	Length (nm)	Diameter (nm)	Aspect Ratio				
CNF 50 nm	6710 ± 5611	64 ± 29	107.6 ± 54.5	1.3120 ± 0.0185	34	< LOD	0
CNF 80 nm	6805 ± 4724	78 ± 25	85.9 ± 40.5	1.3410 ± 0.0194	29	5.46	0
CNC 25 nm	267 ± 91	25 ± 9	11.5 ± 3.2	1.5724 ± 0.0212	93	1.47	0
	Endotoxin Assay LOD 0.5 EU/mg (~0.05 ng/ml)						

**Supplementary Table 2: In vivo serum triglycerides as % change from pre-gavage (t0) in individual animals**

<b>Cream only</b>							
<b>Animal #</b>	1	2	3	4	5	6	7*
<b>1h</b>	138.33	404.98	236.40	211.19	232.53	130.97	36.09
<b>2h</b>	203.39	415.84	207.94	241.54	156.55	232.85	38.70
<b>4h</b>	106.61	157.14	121.77	64.17	123.91	16.40	36.09
<b>Animal #</b>	8	9	10	11	12	13	
<b>1h</b>	95.71	200.61	95.88	192.96	136.01	93.80	
<b>2h</b>	32.53	65.03	118.91	152.54	178.90	52.11	
<b>4h</b>	26.27	28.70	65.92	-16.85	18.45	38.66	
<b>Cream + CNF</b>							
<b>Animal #</b>	1	2	3	4*	5	6	7
<b>1h</b>	120.44	162.61	160.69	240.51	130.81	51.77	42.96
<b>2h</b>	195.72	158.31	284.32	344.34	86.44	67.82	28.91
<b>4h</b>	54.54	164.10	131.09	166.63	110.30	-15.20	27.69
<b>Animal #</b>	8	9	10	11	12	13	
<b>1h</b>	178.58	90.16	87.88	124.63	156.57	74.17	
<b>2h</b>	89.22	129.17	83.87	104.23	84.53	117.08	
<b>4h</b>	50.67	87.53	32.69	-18.68	31.00	32.98	

\* outliers removed from statistical analysis: In the case of the outlier excluded from the cream only group (animal #7 from that group), the percent postprandial rise in TG at 1 hour was only 20% of the mean (and 1.64 standard deviations below the mean) of the other 12 animals, and substantially less than that in any of the other animals in the group, suggesting a failed or incomplete gavage. In the case of the outlier excluded from the cream + CNF group (animal #4 from that group), the post prandial increase in TG at 1 hour was 2.76 standard deviations above the mean of the other 12 animals in the group.

**Supplementary Table 3: fatty acid profiles of food models\***

	Heavy Cream		Corn Oil		Mayonnaise		Coconut Oil	
Weight (g)	100		100		100		100	
Total fat (g)	36.08		100		74.85		99.06	
Fatty acid	mg/100 g	Frax of fat	mg/100 g	Frax of fat	mg/100 g	Frax of fat	mg/100 g	Frax of fat
C4:0	732	0.023					9	0.000
C6:0	609	0.020					477	0.005
C8:0	384	0.012					6802	0.075
C10:0	905	0.029					5390	0.060
C12:0	1050	0.034					41840	0.462

C14:0	3331	0.107			55	0.001	16653	0.184
C15:0	353	0.011			13	0.000	15	
C16:0	9298	0.298	5076	0.053	7909	0.108	8636	0.095
C17:0	210	0.007			71	0.001	9	
C18:0	3572	0.115	2028	0.021	3099	0.042	2516	0.028
C19:0								
C20:0	47	0.002	615	0.006	232	0.003	76	0.001
C21:0								
C22:0	15	0.000	306	0.003	240	0.003	19	0.000
C23:0								
C24:0	9	0.000			84	0.001	31	0.000
<b>Saturated total</b>	20515	0.658	8025	0.084	11703	0.160	82473	0.911
C14:1	344	0.011						
C16:1	656	0.021	191	0.002	88	0.001	16	0.000
C17:1	65	0.002			41	0.001		
C18:1	7968	0.256			16455	0.225		
C18:1			57142	0.597			6274	0.069
C20:1	65	0.002	1204	0.013	238	0.003	41	0.000
C22:1	3	0.000			22	0.000		
<b>Monounsaturated total</b>	9101	0.292	58537	0.612	16844	0.230	6331	0.070
C16:2								
C18:2	1294	0.041	23315	0.244	39146	0.535	1683	0.019
C18:3	128	0.004	5798	0.061	5456	0.074	19	0.000
C20:2	8	0.000			30	0.000		
C20:3	41	0.001			2	0.000		
C20:4	58	0.002			50	0.001		
C20:5	9	0.000						
C22:4	10	0.000						
C22:5	20	0.001						
C22:6					5	0.000		
<b>Polyunsaturated total</b>	1568	0.050	29113	0.304	44689	0.610	1702	0.019

\*From USDA Agricultural Research Service, USDA Branded Food Products Database  
(<https://ndb.nal.usda.gov/ndb/>)