

Supplemental material

Table S1: correlation coefficients between sterols and sterol ratios and inflammatory markers, first (2009-2012) and second (2014-2017) follow-ups, CoLaus|PsyCoLaus study, Lausanne, Switzerland.

	CRP		IL-6		TNF- α	
	First	Second	First	Second	First	Second
Cholesterol absorption						
Cholestanol [mg/dl]	-0.114	-0.081	-0.090	-0.244	-0.088	-0.131
Cholesterol synthesis						
Lathosterol [mg/dl]	0.114	0.018	0.010	-0.049	0.017	-0.002
Desmosterol [mg/dl]	0.080	-0.004	0.036	-0.125	0.031	-0.084
Lanosterol [μ g/dl]	0.109	-0.032	0.044	-0.122	-0.008	-0.022
Dihydro-lanosterol [μ g/dl]	0.052	-0.016	0.069	0.028	-0.033	0.014
Vegetal origin						
Campesterol [mg/dl]	-0.118	-0.123	-0.023	-0.143	-0.030	-0.105
Sitosterol [mg/dl]	-0.130	-0.155	0.001	-0.132	0.007	-0.083
Brassicasterol [μ g/dl]	-0.060	-0.091	0.003	-0.094	-0.016	-0.139
Sitostanol [μ g/dl]	-0.072	-0.095	0.057	-0.093	0.015	-0.097
Campestanol [μ g/dl]	-0.089	-0.096	0.003	-0.085	-0.062	-0.084
Stigmasterol [μ g/dl]	-0.025	-0.117	0.078	0.000	-0.013	-0.016
Ratios						
Cholestanol-to-TC ratio	-0.111	-0.004	-0.023	-0.165	-0.022	-0.094
Synthesis markers-to-TC ratio	0.135	0.035	0.075	-0.038	0.024	0.010
Campesterol-to-cholestanol ratio	-0.057	-0.094	0.036	-0.051	0.018	-0.064
Campesterol-to-TC ratio (100x)	-0.108	-0.077	0.007	-0.100	-0.004	-0.083
Stigmasterol-to-TC ratio	-0.019	-0.074	0.108	0.055	0.017	0.005
Sitosterol-to-TC ratio	-0.115	-0.103	0.041	-0.083	0.044	-0.067
Phytosterols-to-TC ratio	-0.049	-0.069	0.104	0.036	0.037	-0.017

Results are expressed as Spearman nonparametric correlation coefficient. Significant ($p < 0.05$) results are indicated in bold and with a grey background

Table S2. Robust regression between inflammatory markers and serum sterol levels and ratios, first (2009-2012) and second (2014-2017) follow-ups, CoLaus|PsyCoLaus study, Lausanne, Switzerland.

	CRP		IL-6		TNF- α	
	FU1	FU2	FU1	FU2	FU1	FU2
Cholesterol absorption						
Cholestanol [mg/dl]	-0.571 (-1.606 ; 0.464)	-0.636 (-1.529 ; 0.257)	-0.629 (-3.342 ; 2.085)	-0.549 (-0.803 ; -0.295)	-3.365 (-6.504 ; -0.225)	-1.297 (-2.173 ; -0.420)
Cholesterol synthesis						
Lathosterol [mg/dl]	1.392 (0.511 ; 2.272)	-0.266 (-1.302 ; 0.769)	0.054 (-2.248 ; 2.356)	0.042 (-0.113 ; 0.196)	1.516 (-1.164 ; 4.196)	-0.017 (-0.545 ; 0.511)
Desmosterol [mg/dl]	-0.135 (-0.824 ; 0.555)	-0.188 (-0.997 ; 0.621)	-0.888 (-2.668 ; 0.891)	-0.230 (-0.471 ; 0.011)	0.438 (-1.636 ; 2.512)	-0.744 (-1.572 ; 0.084)
Lanosterol [μ g/dl]	0.009 (0.002 ; 0.016)	0.009 (-0.009 ; 0.027)	0.005 (-0.013 ; 0.023)	-0.004 (-0.009 ; 0.001)	0.003 (-0.019 ; 0.024)	0.004 (-0.014 ; 0.022)
Dihydro-lanosterol [μ g/dl]	0.016 (-0.014 ; 0.045)	0.403 (0.040 ; 0.766)	0.109 (0.032 ; 0.186)	0.063 (-0.043 ; 0.170)	-0.030 (-0.119 ; 0.060)	0.178 (-0.189 ; 0.544)
Vegetal origin						
Campesterol [mg/dl]	0.142 (-0.368 ; 0.651)	-0.505 (-1.174 ; 0.163)	0.253 (-1.060 ; 1.566)	-0.140 (-0.338 ; 0.058)	-0.895 (-2.422 ; 0.633)	-0.888 (-1.555 ; -0.221)
Sitosterol [mg/dl]	-0.141 (-0.928 ; 0.646)	-0.691 (-1.553 ; 0.170)	1.385 (-0.642 ; 3.412)	-0.182 (-0.438 ; 0.074)	-0.155 (-2.526 ; 2.216)	-0.706 (-1.580 ; 0.167)
Brassicasterol [μ g/dl]	0.006 (-0.002 ; 0.015)	-0.008 (-0.018 ; 0.002)	0.015 (-0.008 ; 0.038)	-0.002 (-0.005 ; 0.001)	-0.005 (-0.032 ; 0.022)	-0.019 (-0.029 ; -0.009)
Sitostanol [μ g/dl]	-0.009 (-0.033 ; 0.015)	-0.008 (-0.055 ; 0.040)	0.043 (-0.019 ; 0.106)	-0.012 (-0.026 ; 0.003)	0.042 (-0.031 ; 0.116)	-0.042 (-0.091 ; 0.007)
Campestanol [μ g/dl]	-0.013 (-0.038 ; 0.011)	-0.055 (-0.123 ; 0.013)	-0.001 (-0.065 ; 0.063)	-0.012 (-0.032 ; 0.008)	-0.036 (-0.111 ; 0.039)	-0.062 (-0.132 ; 0.007)
Stigmasterol [μ g/dl]	0.009 (-0.015 ; 0.034)	-0.010 (-0.04 ; 0.020)	0.106 (0.041 ; 0.170)	0.004 (-0.004 ; 0.013)	-0.037 (-0.111 ; 0.038)	0.012 (-0.018 ; 0.042)
Ratios						

Cholestanol-to-TC ratio	-0.132 (-0.416 ; 0.152)	-0.042 (-0.236 ; 0.151)	0.292 (-0.441 ; 1.024)	-0.129 (-0.184 ; -0.074)	-0.580 (-1.438 ; 0.278)	-0.381 (-0.573 ; -0.190)
Synthesis markers-to-TC ratio	0.002 (0.001 ; 0.004)	0.004 (0.001 ; 0.008)	0.003 (-0.001 ; 0.007)	-0.001 (-0.002 ; 0)	0.002 (-0.002 ; 0.007)	0.000 (-0.004 ; 0.004)
Campesterol-to-cholestanol ratio	0.045 (-0.140 ; 0.230)	-0.119 (-0.409 ; 0.172)	0.154 (-0.322 ; 0.631)	0.006 (-0.080 ; 0.092)	0.019 (-0.538 ; 0.575)	-0.268 (-0.561 ; 0.026)
Campesterol-to-TC ratio (100x)	0.045 (-0.072 ; 0.162)	-0.078 (-0.206 ; 0.050)	0.168 (-0.134 ; 0.470)	-0.029 (-0.067 ; 0.009)	-0.127 (-0.480 ; 0.226)	-0.185 (-0.313 ; -0.058)
Stigmasterol-to-TC ratio	0.003 (-0.003 ; 0.008)	0.000 (-0.006 ; 0.006)	0.033 (0.018 ; 0.048)	0.001 (-0.001 ; 0.002)	-0.003 (-0.02 ; 0.014)	0.001 (-0.005 ; 0.007)
Sitosterol-to-TC ratio	-0.024 (-0.207 ; 0.158)	-0.105 (-0.269 ; 0.058)	0.532 (0.062 ; 1.003)	-0.039 (-0.088 ; 0.010)	0.186 (-0.365 ; 0.738)	-0.161 (-0.326 ; 0.004)
Phytosterols-to-TC ratio	0.000 (-0.003 ; 0.003)	0.001 (-0.003 ; 0.005)	0.014 (0.007 ; 0.022)	0.000 (-0.002 ; 0.001)	0.005 (-0.005 ; 0.014)	-0.002 (-0.006 ; 0.002)

CRP, C-reactive protein; FU, follow-up; IL-6, interleukin 6; TNF- α , tumor necrosis factor alpha. Results are expressed as slope and (95% confidence interval). Statistical analysis conducted by robust regression adjusting for age (continuous), sex (male, female), BMI (continuous), metformin (yes, no) and statin use (yes, no). Significant ($p < 0.05$) associations are indicated in bold.