

Supplementary Table III Adjusted changes in preclinical outcomes for every one increase in serum PUFA concentrations in 100 women, restricting the analysis to the first fresh cycle only.

	Peak estradiol	Total oocytes	MII oocytes	Fertilization [†]	Probability of ≥ 1 good embryo [†] quality (%)
	Absolute difference (pmol/L) per 1 increase in serum concentrations	Relative difference per 1 increase in serum concentrations			
18:3 ω-3 ALA	-467 (-1189, 255)	0.6 (-23.4, 32.2)	2.0 (-24.3, 37.5)	-21.7 (-45.2, 11.9)	-35.1 (-72.2, 51.6)
20:5 ω-3 EPA	-93 (-265, 79)	-8 (-14.8, -0.6)	-6.4 (-13.8, 1.6)	1.9 (-8.3, 13.1)	-2.5 (-23.1, 23.6)
22:5 ω-3 DPA	-458 (-1577, 662)	-6 (-38.3, 43.1)	-3.4 (-39.0, 52.9)	24.9 (-28.6, 119)	-75.4 (-95.4, 30.5)
22:6 ω-3 DHA	18 (-160, 195)	-4.9 (-11.2, 1.8)	-3.4 (-10.4, 4.1)	2.0 (-7.1, 12.0)	-8.1 (-26.5, 14.8)
Long chain	-24 (-116, 67)	-3.5 (-7.1, 0.1)	-2.7 (-6.5, 1.3)	1.2 (-3.8, 6.5)	-4.0 (-16.9, 10.9)
Total ω-3 PUFA	-32 (-123, 60)	-3.5 (-7.1, 0.1)	-2.7 (-6.5, 1.3)	0.7 (-4.3, 6.0)	-4.8 (-18.0, 10.6)
18:2 ω-6 LA	4 (-39, 47)	-2.1 (-3.6, -0.5)	-1.9 (-3.7, -0.2)	-1.1 (-3.2, 1.0)	-3.0 (-7.6, 1.9)
20:4 ω-6 AA	50 (-36, 137)	1.6 (-1.6, 5.0)	1.9 (-1.7, 5.6)	-0.6 (-4.7, 3.6)	6.9 (-2.1, 16.8)
Total ω-6 PUFA	12 (-24, 49)	-1.1 (-2.4, 0.3)	-1.0 (-2.5, 0.5)	-0.8 (-2.6, 0.9)	-0.9 (-4.7, 3.0)
Ratio of ω-6 to ω-3 ²	-127 (-244, -9)	-4.6 (-9.5, 0.7)	-3.4 (-8.7, 2.2)	0.6 (-6.0, 7.7)	2.8 (-3.9, 10.0)
Ratio of LA to ALA ³	20 (-11, 50)	0 (-1.2, 1.1)	0.5 (-0.8, 1.7)	0.2 (-1.2, 1.7)	1.0 (-2.1, 4.1)
Total PUFA	7 (-28, 42)	-1.4 (-2.7, -0.1)	-1.3 (-2.7, 0.2)	-0.7 (-2.3, 1.0)	-1.4 (-4.9, 2.1)

AA, arachidonic acid; ALA, alpha linolenic acid; DHA, decosahexaenoic acid; DPA, docosapentaenoic acid; EPA, eicosapentaenoic acid; LA, linoleic acid; PUFA, polyunsaturated fatty acids.

¹Adjusted for age, BMI, smoking status, moderate-to-vigorous physical activity, use of multivitamins and history of live birth.

²Additional adjusted for ω-6 and ω-3 PUFA concentrations.

³Additional adjusted for LA and ALA concentrations.

[†]Modified Poisson model was used to model fertilization given the weighted GEE log binomial models do not converge.