Table 2. Characteristics of the included articles

Reference	Country	Study design	Interventions		Participants	Outcome	Funding
			ARA (mg/day in addition to diet)	Comparator			
Barakat et al.[20]	Egypt	Randomized, controlled, parallel design with three interventions (ARA vs ARA+Praziquantel vs Praziquantel) Experimental period: Praziquantel was given once, ARA for 21 days (5 days/week); Follow up at days 42 and 62	10 mg/kg (5 days per week)	Corn-soybean oil blend	Schoolchildren with light, moderate, or heavy *S. mansoni* infection Age: 4 to 6 years Initial n = 268 (blood sample not clear); final at follow-up day 42 n = 243; final at follow-up day 62 n = 183 Losses: Reasons not clear	Fatty acid composition Blood lipids Platelet aggregation, bleeding and hematological markers Immune and inflammatory markers	DSM North America
De Souza et al.[21]	USA	Randomized controlled, parallel design with two interventions (ARA vs comparator) Experimental period: 8 week during a training program	600	Corn oil	Healthy men Age: 20 ± 2 years Initial n = 30 Losses: Not clear	Body composition, physical performance and muscle function	Molecular Nutrition
Emken et al.[22] [Sub-study of Nelson et al.[13]]	USA	Trial with two interventions (ARA vs comparator) Experimental period: 50 days	1500	High oleic safflower oil (271 mg ARA/d from background diet)	Healthy men Age: 21 to 26 years n = 4	PUFA metabolism	Used ARASCO from Martek Biosciences
Hirota et al.[23]	Japan	Random order, cross-over, controlled	80	Olive oil	Healthy women	Fatty acid composition	Not mentioned

Reference	Country	Study design	Interventions		Participants	Outcome	Funding
			ARA (mg/day in addition to diet)	Comparator			
		design with two interventions (ARA vs comparator) Experimental period: 4 successive periods of 3 weeks (3 weeks washout, 3 weeks with treatment 1, 3 weeks washout and 3 weeks with treatment 2)			Age: 18 to 23 years (mean ~19 years) Initial n = 23 Losses: Not clear, possibly none		
Ishikura et al.[24]	Japan	Random order, cross-over, controlled design with two interventions (ARA vs comparator) Experimental period: 1 month; Washout: 1 month	240	Olive oil	Healthy men Age: 57 to 68 years (mean 62.8 ± 2.9 years) Initial n = 25; final n = 20 Losses: 1 reason not given; 4 excluded due to excessive noise due to movement during measurement	Fatty acid composition Cognition	University of Tokyo Kyorin University School of Medicine Suntory
Kakutani et al.[25]	Japan	Randomized, controlled, parallel design with three interventions (Two intakes of ARA vs comparator) Experimental period: 4 weeks then 4 week washout	240; 720	Olive oil	Healthy elderly (n = 27 men; n = 37 women) Age: 55 to 70 years (mean 62 years) Initial n = 66; final n = 64 Losses: 1 discontinuation for personal reason; 1 excluded for meeting	Fatty acid composition Immune and inflammatory markers Urinary metabolites	Tokyo Medical and Dental University Suntory

Reference	Country	Study design	Interventions		Participants	Outcome	Funding
			ARA (mg/day in addition to diet)	Comparator			
					one exclusion criteria		
Kusumoto et al.[26]	Japan	Randomized, controlled, parallel design with two interventions (ARA vs comparator) Experimental period: 4 weeks	838	Olive oil	Healthy men (fish consumers) Age: 26 to 60 years Initial n = 28; final n = 24 Losses: 1 developed tonsillitis and took anti-inflammatory drugs; 1 developed an infectious disease and fever; 2 used anti-inflammatory drugs	Fatty acid composition Blood lipids Blood pressure Platelet aggregation, bleeding and hematological markers	Suntory
Mitchell et al.[27]; Markworth et al.[28]	New Zealand	Randomized, controlled, parallel design with two interventions (ARA vs comparator) Experimental period: 4 weeks	1500	Corn-soybean oil blend	Healthy men participating in a resistance training programme Age: 18 to 35 years (Mean ~ 25 years) Initial n = 21; final n = 19 Losses: 1 due to injury; 1 due to use of anti-inflammatory drugs	Fatty acid composition Blood lipids Haematological markers Body composition, physical performance and muscle function	University of Auckland and DSM Nutritional Products
Nelson et al.[13,14]; Kelley et al.[15,16]; Ferretti et al.[17]	USA	Randomized, controlled, cross-over design with two interventions (ARA vs comparator) Experimental period:	1500	High oleic safflower oil (271 mg ARA/day from background diet)	Healthy men Age: 20 to 38 years Initial n = 12; final n = 10 Losses: reasons not given	Fatty acid composition Blood lipids Platelet aggregation, bleeding and haematological markers	Used ARASCO from Martek Biosciences

Reference	Country	Study design	Interventions		Participants	Outcome	Funding
			ARA (mg/day in addition to diet)	Comparator			
		Standard diet 1-15 days, Cross-over period 1 between 16-65 days, Cross-over period 2 between 66-115 days, Washout on standard diet 116-130 days				Immune and inflammatory markers Urinary metabolites	
Pantaleo et al.[29]	Italy	Randomized, controlled, parallel design with two interventions (ARA vs comparator) Experimental period 56 days; follow-up after 28 days of washout	2000	Oleic acid	Patients with cirrhosis Age: mean 64 years Initial n = 30 (8 men and 7 women per group); final n = 23 Losses: 1 consent withdrawn prior to starting; 3 withdrawn due to adverse events during the intervention period; 2 withdrawn due to adverse events during the washout period; 1 consent withdrawn during the washout period	Fatty acid composition Platelet aggregation, bleeding and haematological markers Urinary metabolites	Italian Ministry of Education, Universities and Research University of Florence Italian Liver Foundation Martek Biosciences
Roberts et al.[30]	USA	Randomized, controlled, parallel design, clusters matched to age and body mass with two interventions (ARA vs comparator)	1000	Corn oil	Healthy men Age: Man 22 ± 5 years Initial n = 31; final n = 31	Blood lipids Platelet aggregation, bleeding and haematological markers Immune and inflammatory markers	Molecular Nutrition

Reference	Country	Study design	Interventions		Participants	Outcome	Funding
			ARA (mg/day in addition to diet)	Comparator			
		Experimental period: 50 days				Body composition, physical performance and muscle function	
Schubert et al.[31]	Germany	Randomized, parallel design with two interventions (ARA vs bioactive oil blend) Experimental period: 2 weeks; follow up 2 weeks after stopping the intervention	40	Blend of other bioactive fatty acids	Healthy adults Age: 20 to 38 years (mean 28 years) Initial n = 30 Losses: Not clear, possibly none	Fatty acid composition Immune and inflammatory markers	None mentioned
Selim et al.[32]	Egypt	Randomized, controlled, parallel design with three interventions (ARA vs ARA+Praziquantel vs Praziquantel) Experimental period: Praziquantal was given once, ARA for 21 days (5 days/week); Follow up at days 28 and 62	10 mg/kg (5 days per week)	Corn-soybean oil blend	School children Age: 6 to 15 years Initial n = 66 Losses: None but fatty acids reported for a sub-sample	Fatty acid composition Blood lipids Platelet aggregation and haematological markers Immune and inflammatory markers	DSM North America
Smit et al.[33]	Israel	Randomized, open label, parallel design with two groups (ARA vs nothing) Experimental period: 1 week	284	Nothing	Breast feeding women Age: Mean 23 years Initial n = 20; final n = 18 Losses: 2 lost to follow-up	Fatty acid composition	Not mentioned
Thies et al.[34-]	UK	Randomized,	680	Palm oil +	Healthy men (n = 9) and	Fatty acid composition	UK Government, Unilever

Reference	Country	Study design	Interventions		Participants	Outcome	Funding
			ARA (mg/day in addition to diet)	Comparator			
[36]		controlled, parallel design with 2 interventions (ARA vs comparator) Experimental period: 12 weeks then 4 week washout		sunflower seed oil blend (80:20)	women (n = 7) Age: 55 to 75 years (mean 62 years) Initial n = 16; final n = 16	Immune and inflammatory markers	and Nutricia Research (under Agri-Food LINK Programme)

Abbreviation used: ARA, arachidonic acid.