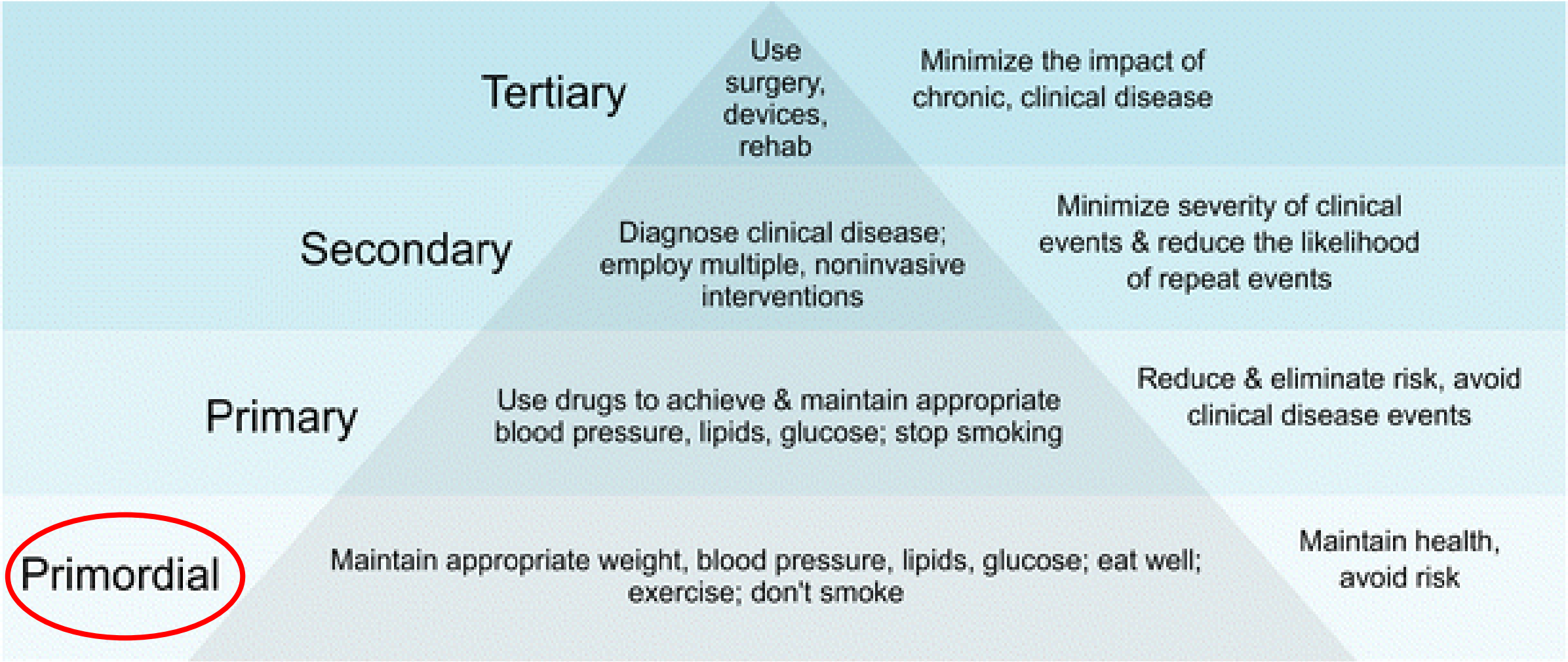
# The pyramid of prevention



# Il continuum cardiometabolico

**IFG**

**PA normale-alta**

**Colesterolemia subottimale**

**Danno d'organo subclinico**

**Fattore età**

**Evento**

**Diabete di tipo 2**

**Ipertensione**

**Ipercolesterolemia/Dislipidemia aterogena**

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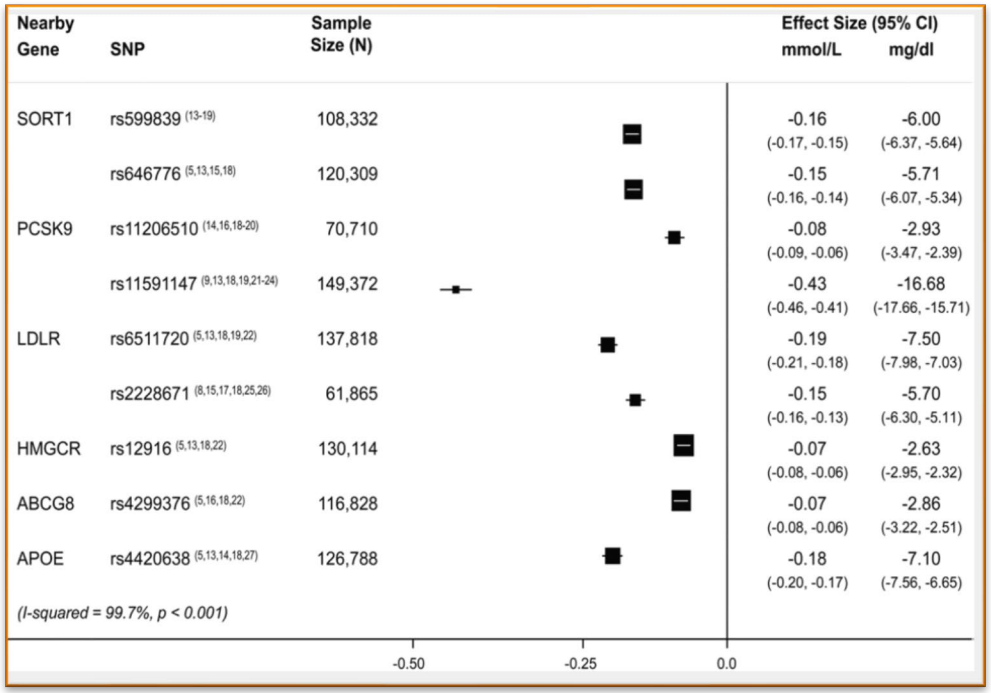
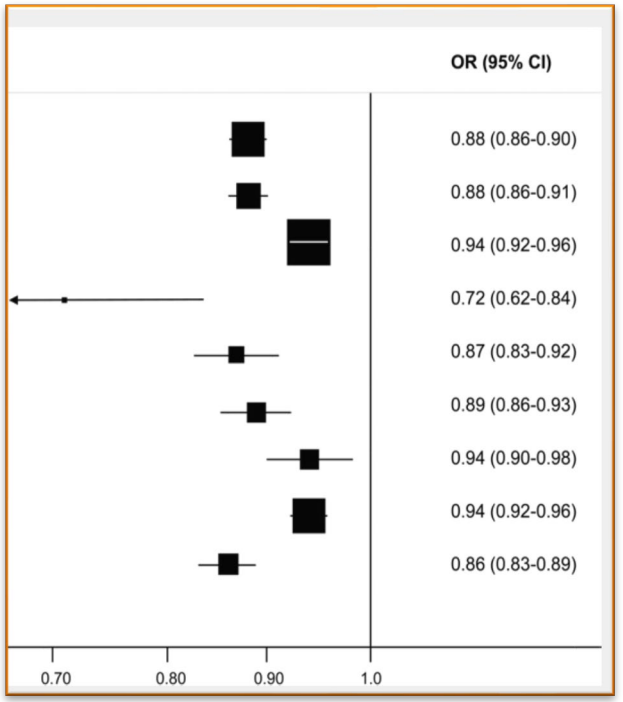
Cardiometabolic Risk

# Effect of Long-Term Exposure to Lower Low-Density Lipoprotein Cholesterol Beginning Early in Life on the Risk of Coronary Heart Disease

## A Mendelian Randomization Analysis




LDL-C level




CHD event risk

# Comparative Clinical Benefit

JACC 201
60(25):2631-

| Timing of LDL-C Lowering | Source of Point Estimate | Size (N) | Adjusted per 38.7 mg/dl (1 mmol/L) Lower LDL-C | | |
|---|---|---|---|---|---|
| | | | $OR_{CHD}$ (95% CI) | RRR (95% CI) | p (difference) |
| Early in life | mRCT | 326,443 | 0.46 (0.41-0.52) | 54% (48-59) | $p = 8.4x10^{-19}$ |
| Later in life | Meta-Analysis of Statin trials | 169,138 | 0.76 (0.74-0.78) | 24% (22-26) | |

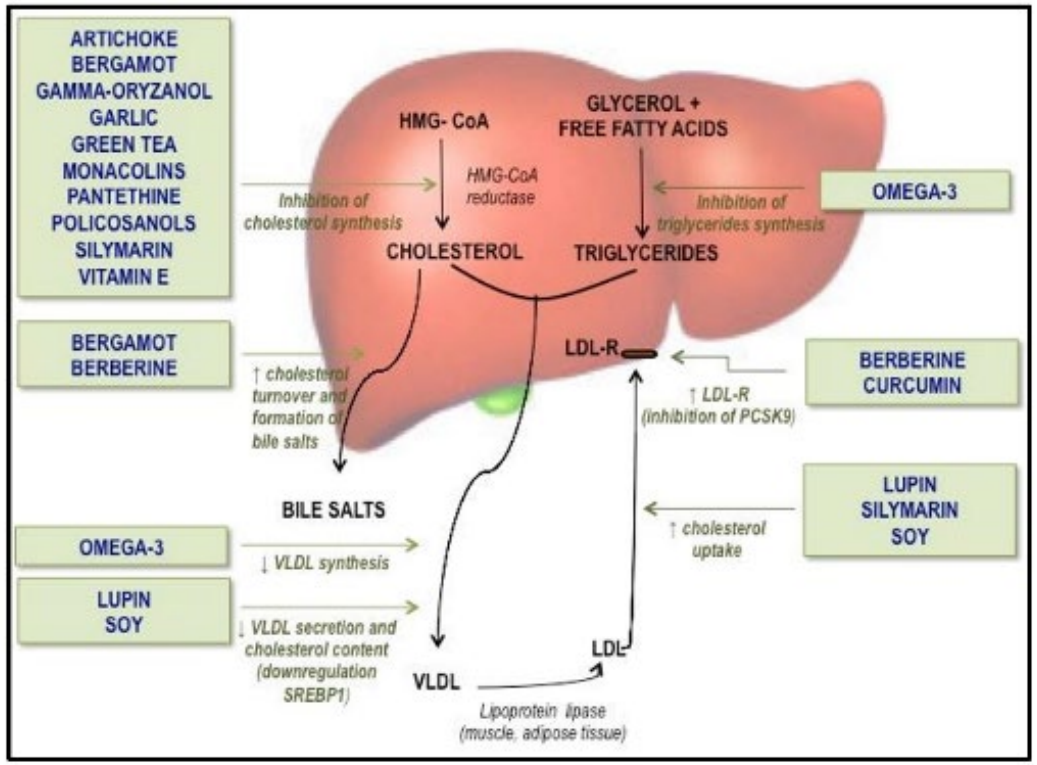
Early in life: *38.7 mg/dl (1 mmol/L)* *lower LDL-C* → *~ 55% RRR* *(OR: 0.46)*

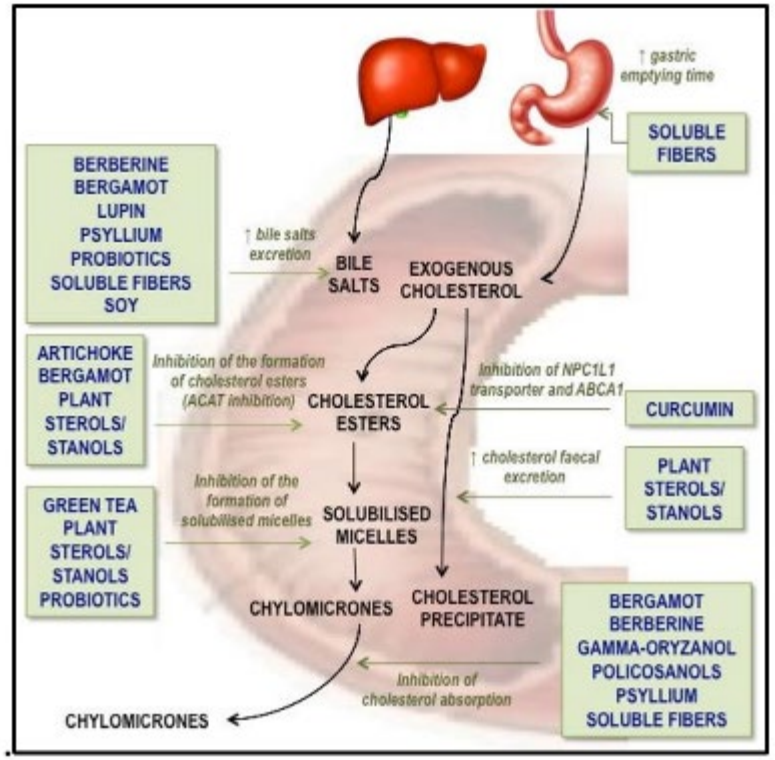
Later in life: *116 mg/dl (3 mmol/L)* *lower LDL-C* → *~ 55% RRR* *(OR: 0.44 = 0.76*0.76*0.76)*

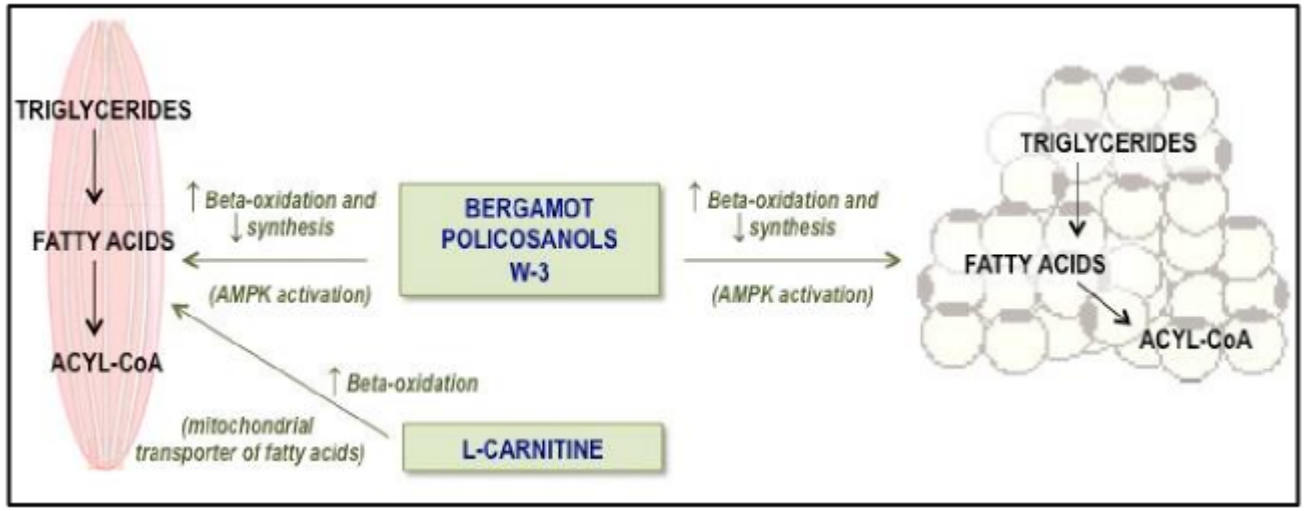
- Prolonged exposure to lower LDL-C beginning early in life associated with *3-fold greater clinical benefit* for each unit lower LDL than treatment with a statin started later in life
  - May explain much of residual risk of coronary events experienced by persons being treated with a statin started later in life

# Primordial prevention: the targets

- Body weight optimization
- Borderline/normal high BP -> Optimal BP
- Sedentariety -> Increased physical activity
- FPG 100-125 mg/dL -> <100 mg/dL
- LDL-C 115-160 mg/dL -> <115 mg/dL (the lower, the better)
- TG 150-200 mg/dL -> <150 mg/dL
- Sleep quality improvement
- Stress -> < Stress




*Cicero AF et al. Food Funct. 2017; 8(6):2076-2088.*

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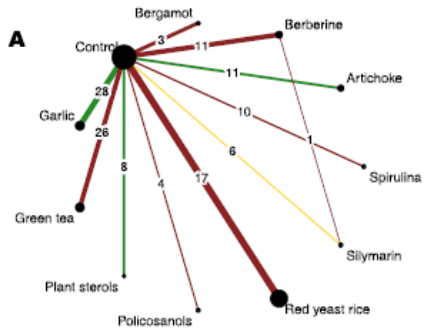
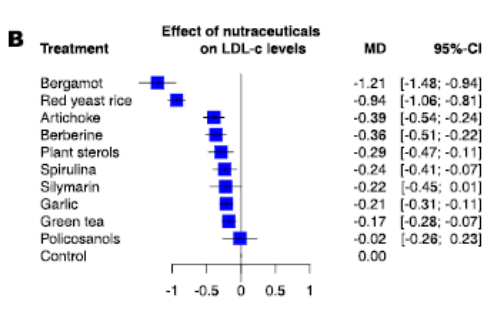
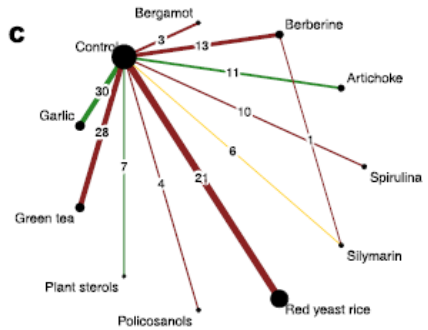
Review

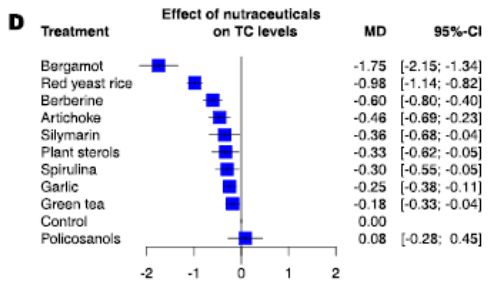

# A network meta-analysis on the comparative effect of nutraceuticals on lipid profile in adults

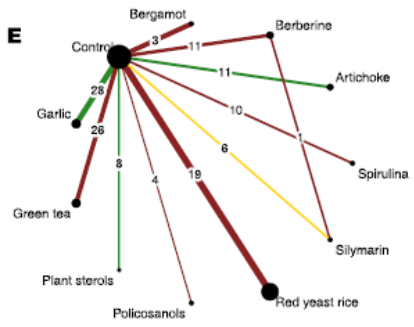
Tadeusz Osadnik [a], Marcin Goławski [a], Piotr Lewandowski [a], Jakub Morze [b], Kamila Osadnik [a], Natalia Pawlas [a], Mateusz Lejawa [a], Grzegorz K. Jakubiak [a,c], Agnieszka Mazur [a], Lucas Schwingschackl [d], Mariusz Gąsior [e], Maciej Banach [f,*]

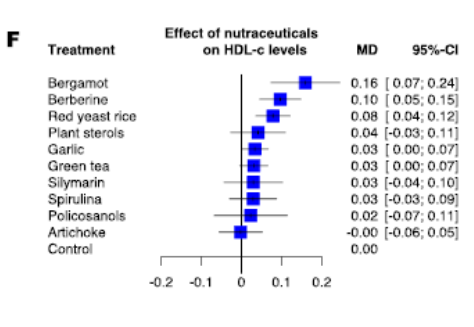


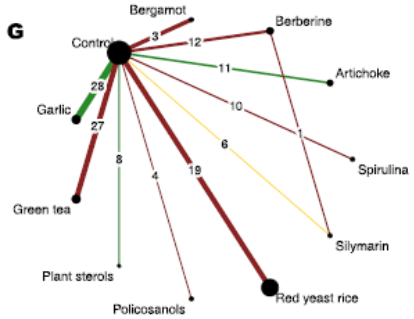



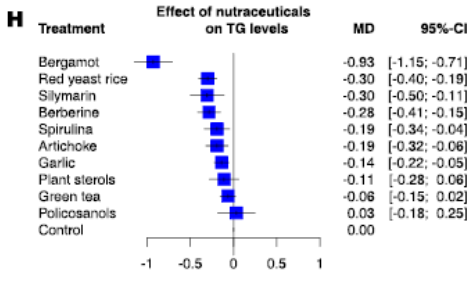

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# Nutra-Nutra and Nutra-Drug association ?

***Cicero AF et al. Curr Atheroscler Rep. 2021;23(10):57.***