



University of Copenhagen & Copenhagen University Hospital

K-877, a SPPARM α , improves the proatherogenic lipid profile of hypertriglyceridaemic patients - even when on stable statin therapy

Børge G Nordestgaard

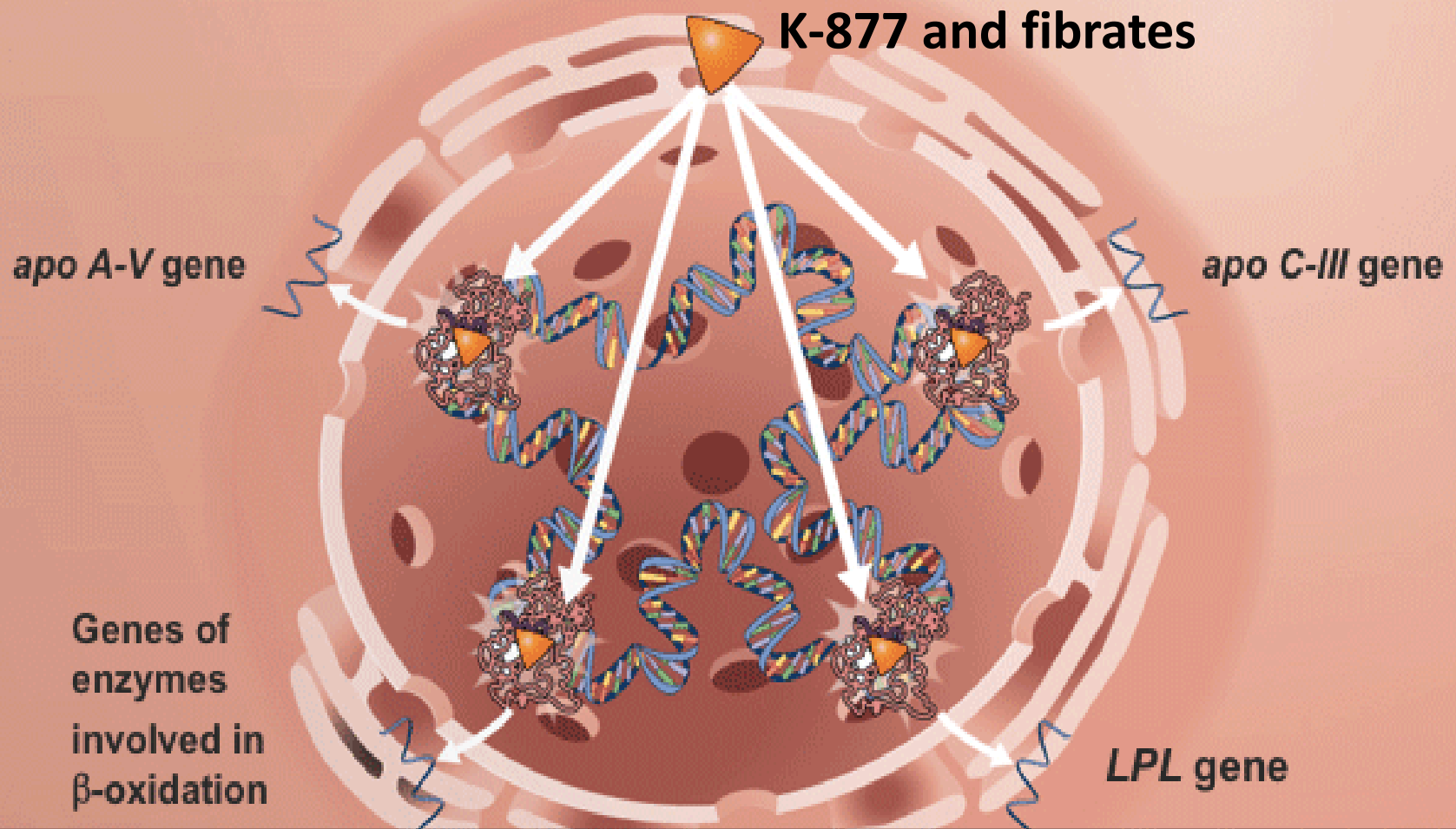
Professor, Chief Physician, MD, DMSc

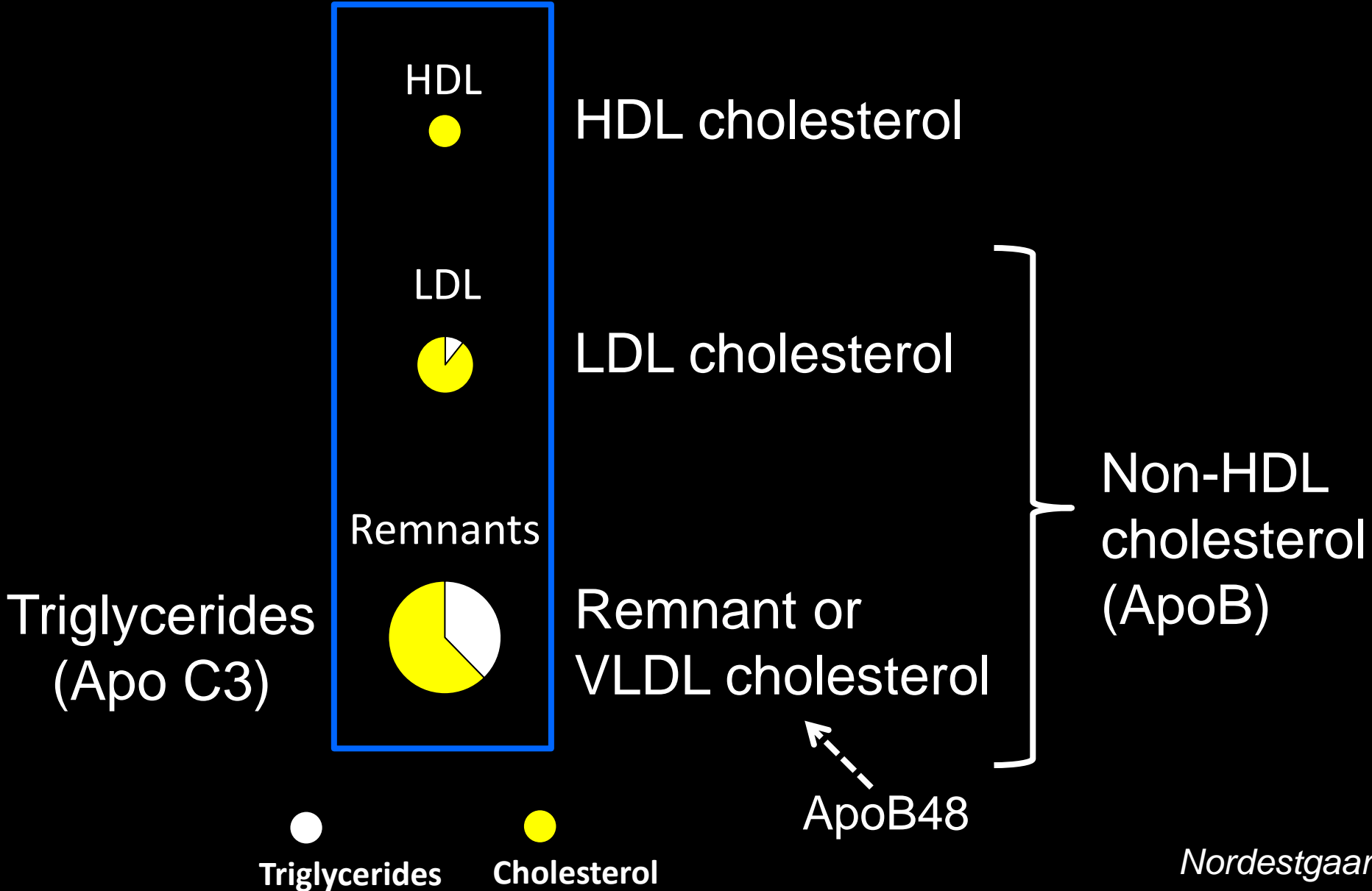
Conflict of Interest Disclosure

Consultancies or talks sponsored by AstraZeneca, Merck, Omthera, Sanofi-Aventis, Regeneron, ISIS Pharmaceuticals, Aegerion, Dezima, Fresenius, B Braun, Kaneka, Pfizer, Amgen, Lilly, Kowa, Denka Seiken

PPAR activators regulate the expression of the key genes involved in TG metabolism

K-877 and fibrates





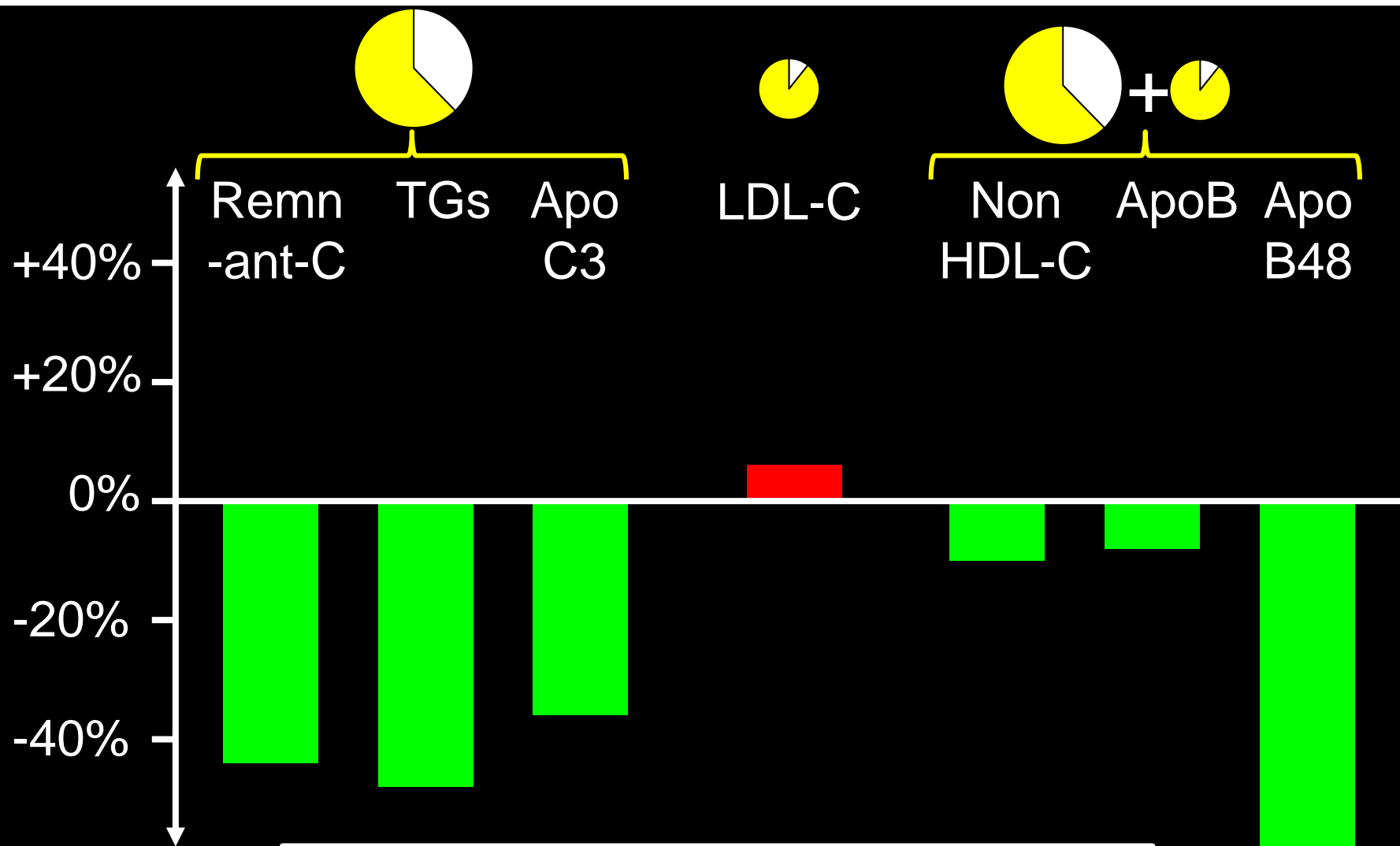
K-877 0.1 mg BID
38 Japanese

Baseline TG

316 mg/dL = 3.2 mmol/L

LDL-C

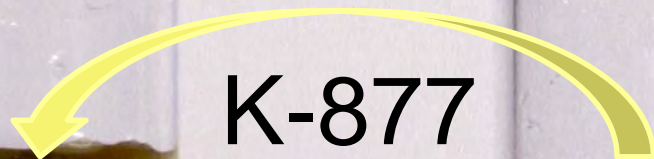
131 mg/dL = 3.4 mmol/L



Change from baseline

↑ LDL

↑ Remnants



K-877

Improved
lipid
profile

↑ CVD

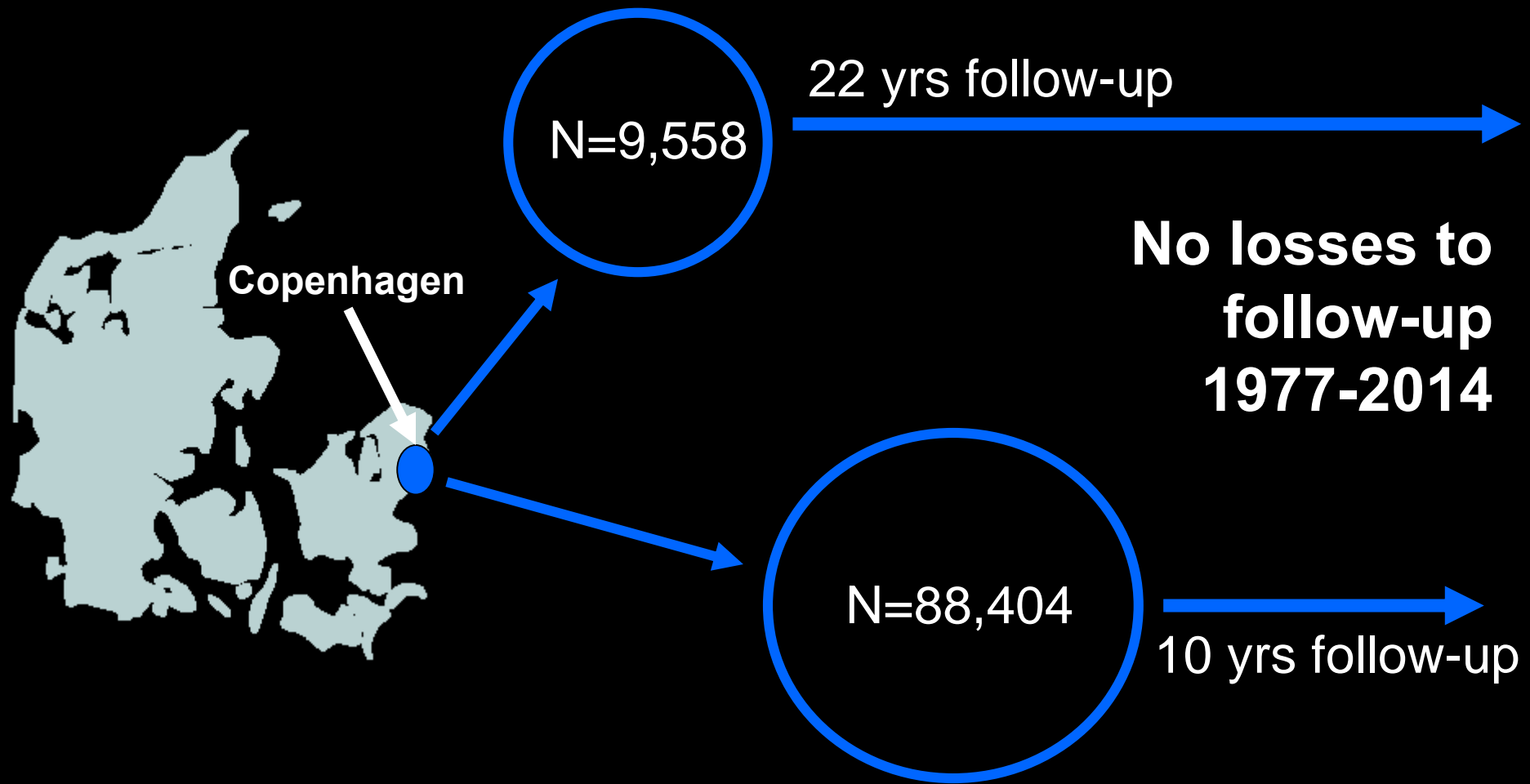
↑↑ CVD

Remnant cholesterol

total cholesterol minus LDL-C minus HDL-C

no direct assay available yet

Copenhagen City Heart Study (CCHS)



Copenhagen

N=9,558

22 yrs follow-up

No losses to
follow-up
1977-2014

N=88,404

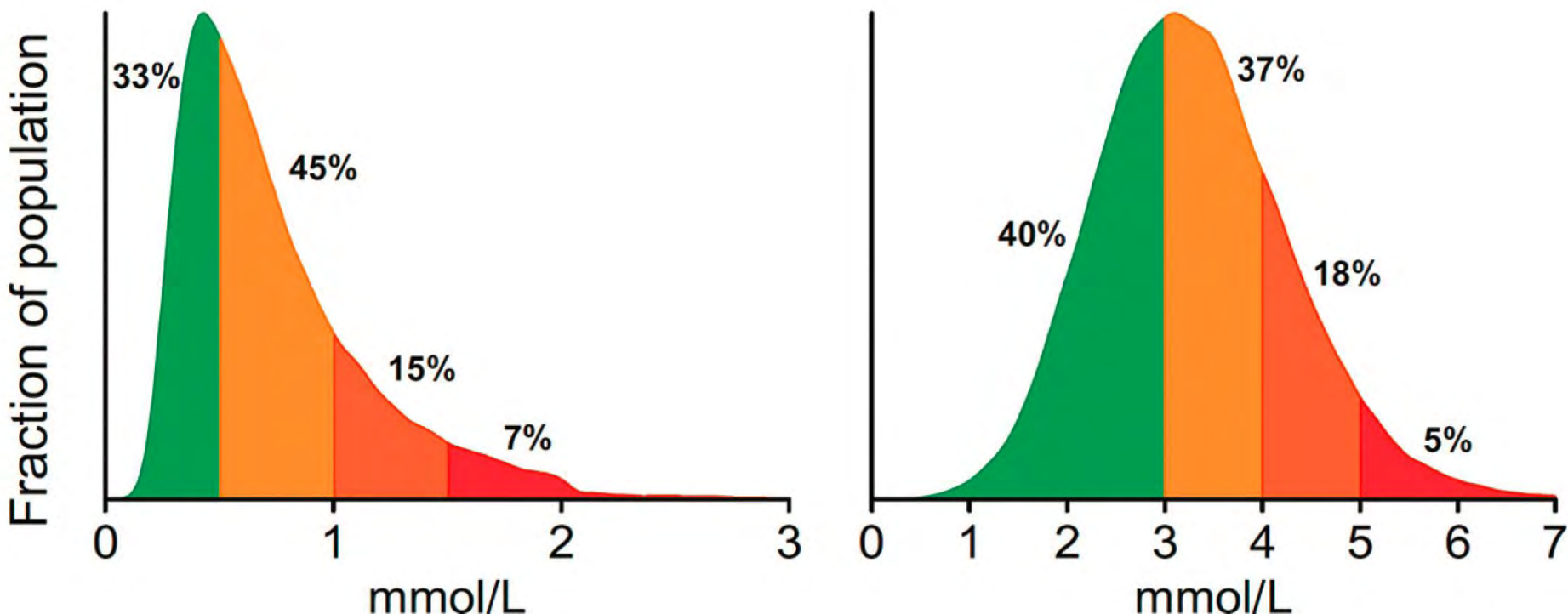
10 yrs follow-up

Copenhagen General Population Study (CGPS)

97,962 nonfasting samples
Copenhagen General Population Study and the
Copenhagen City Heart Study combined

Remnant Cholesterol

LDL Cholesterol

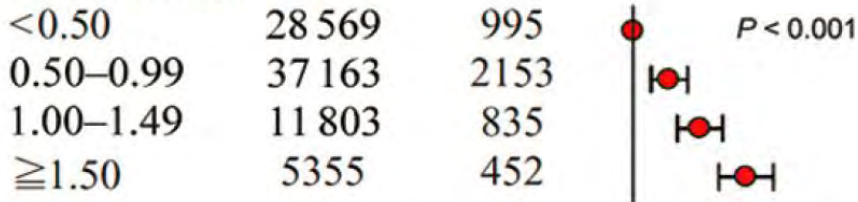


~90,000 individuals from CGPS & CCHS combined

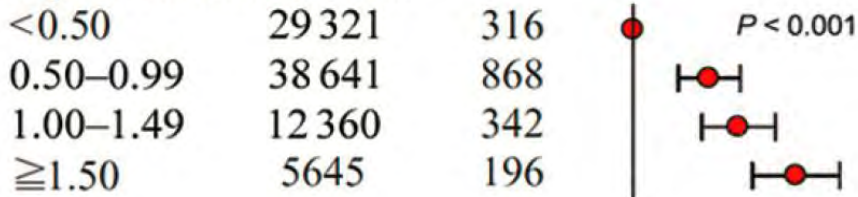
Remnant cholesterol

Remnant cholesterol (mmol/L)	Participants (No.)	Events (No.)
<0.50	28 569	995
0.50–0.99	37 163	2153
1.00–1.49	11 803	835
≥1.50	5355	452

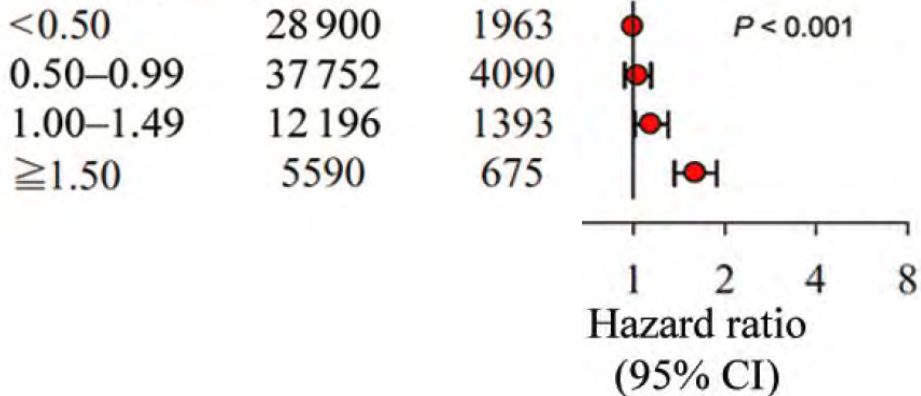
Ischemic heart disease



Myocardial infarction



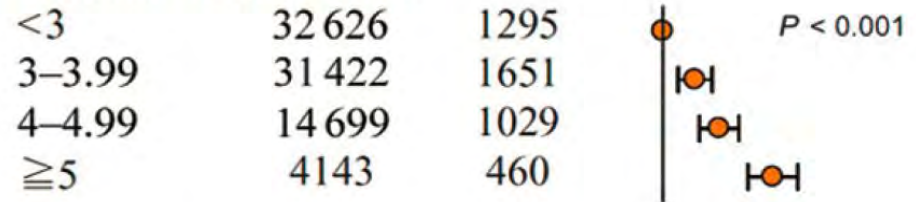
All-cause mortality



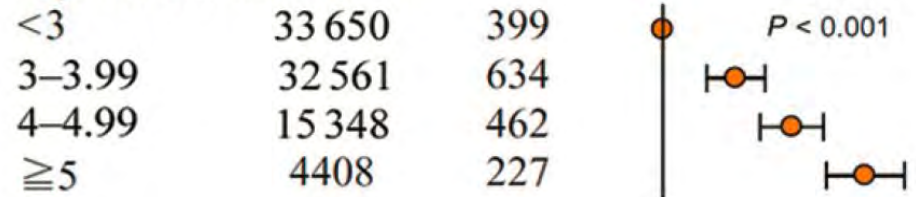
LDL cholesterol

LDL cholesterol (mmol/L)	Participants (No.)	Events (No.)
<3	32 626	1295
3–3.99	31 422	1651
4–4.99	14 699	1029
≥5	4143	460

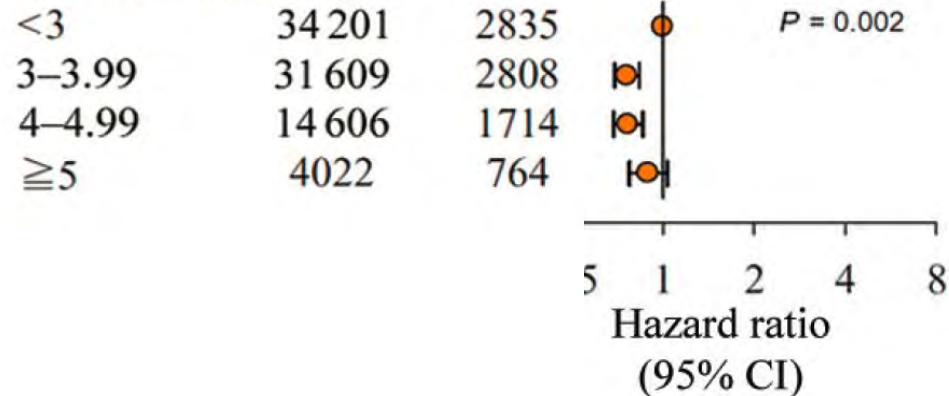
Ischemic heart disease



Myocardial infarction

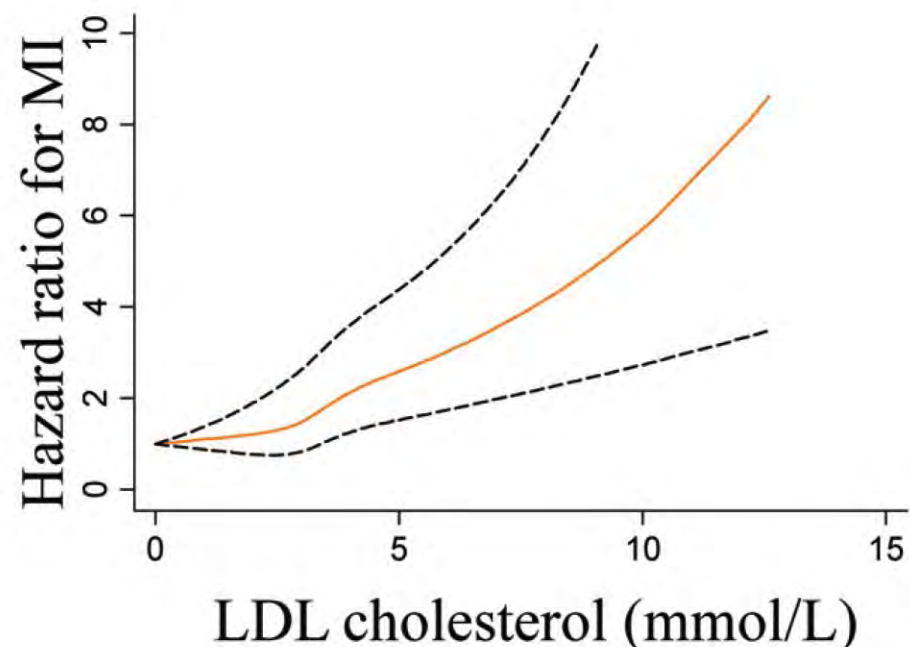
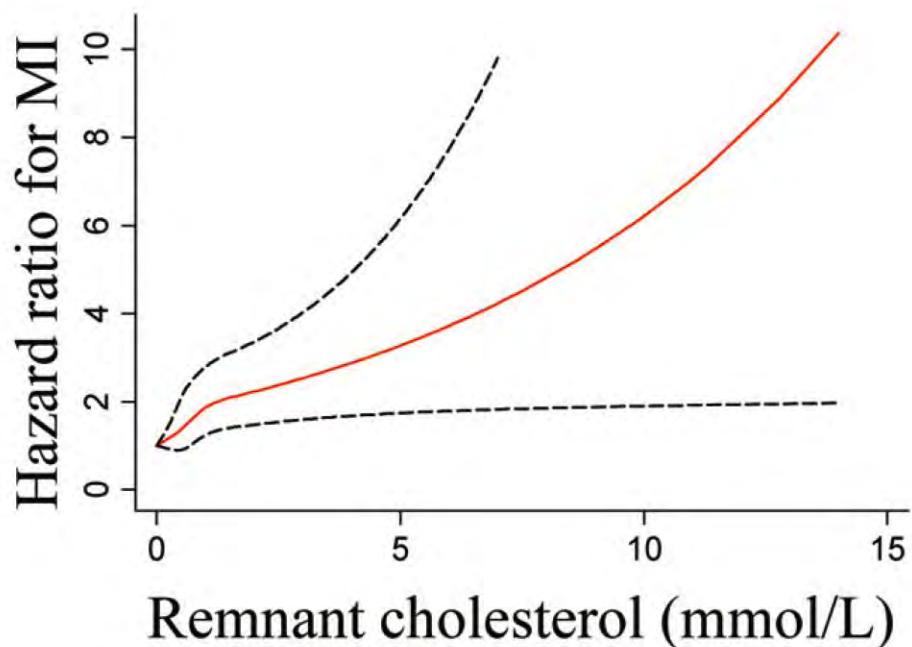


All-cause mortality



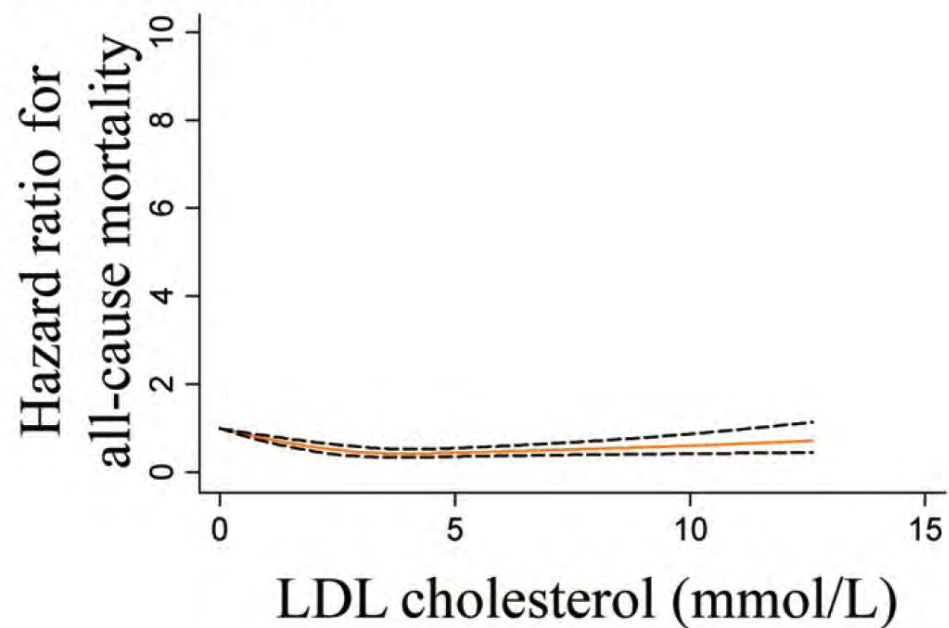
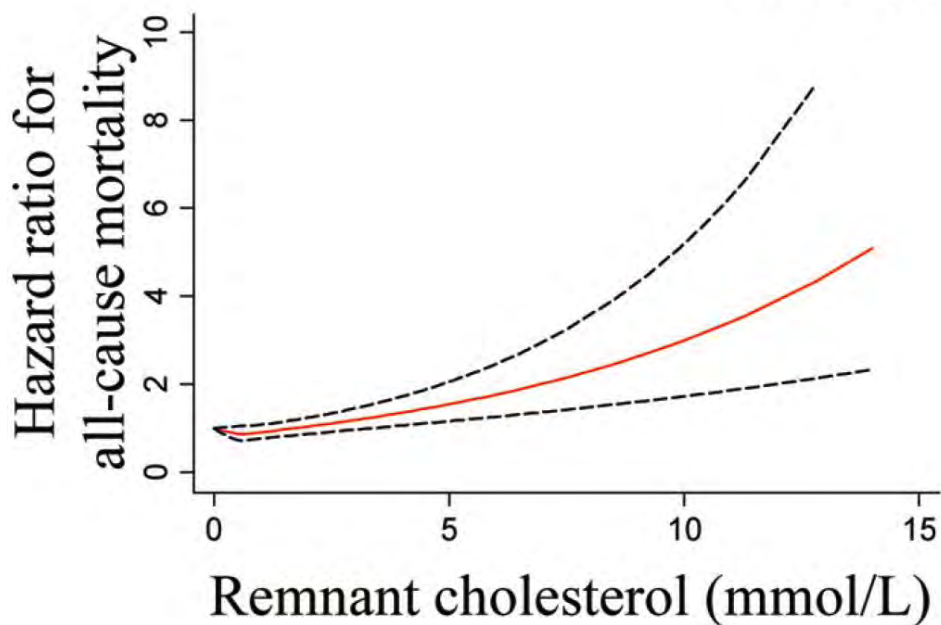
~90,000 individuals from CGPS & CCHS combined

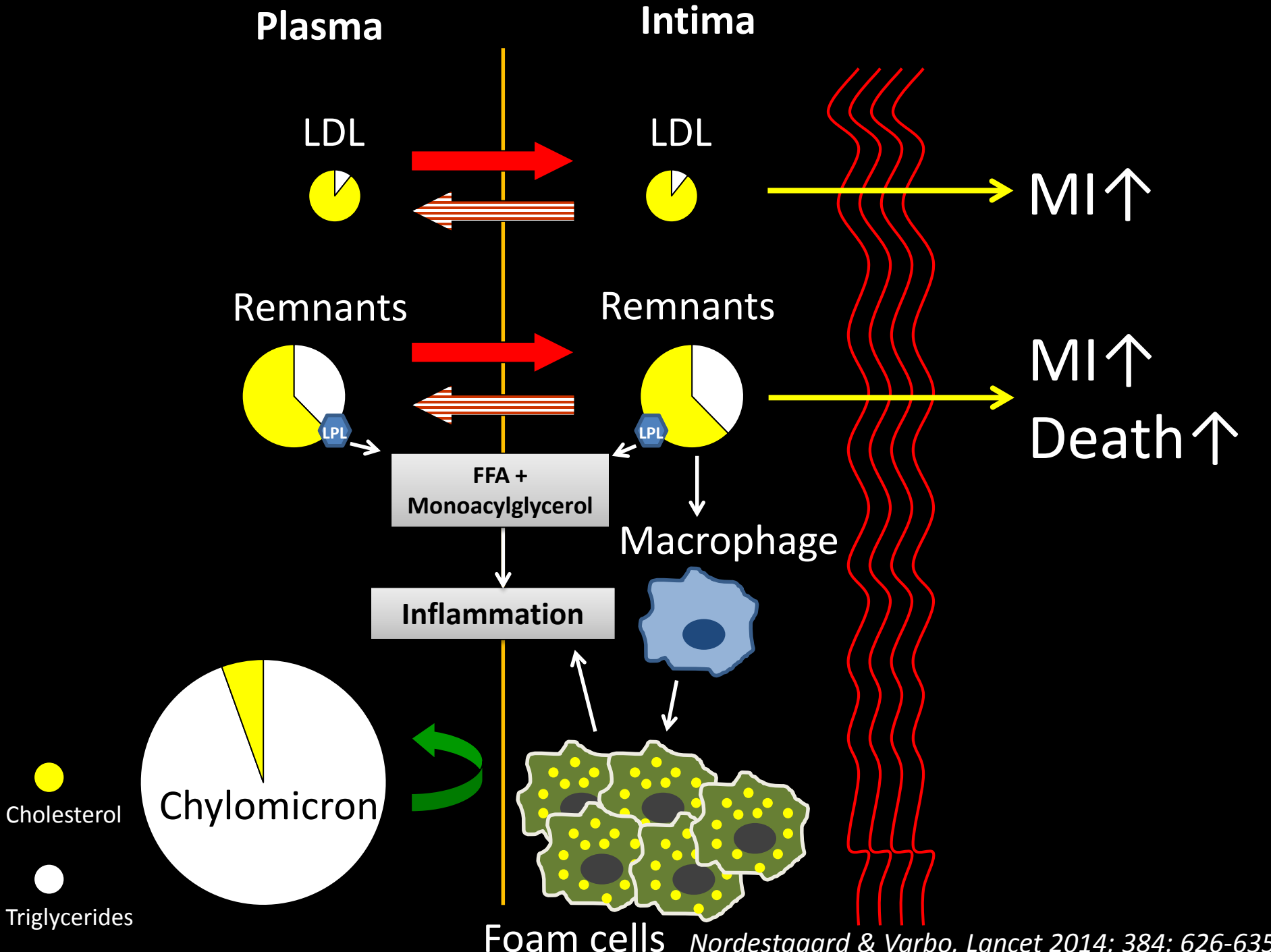
Myocardial Infarction



~90,000 individuals from CGPS & CCHS combined

All-Cause Mortality





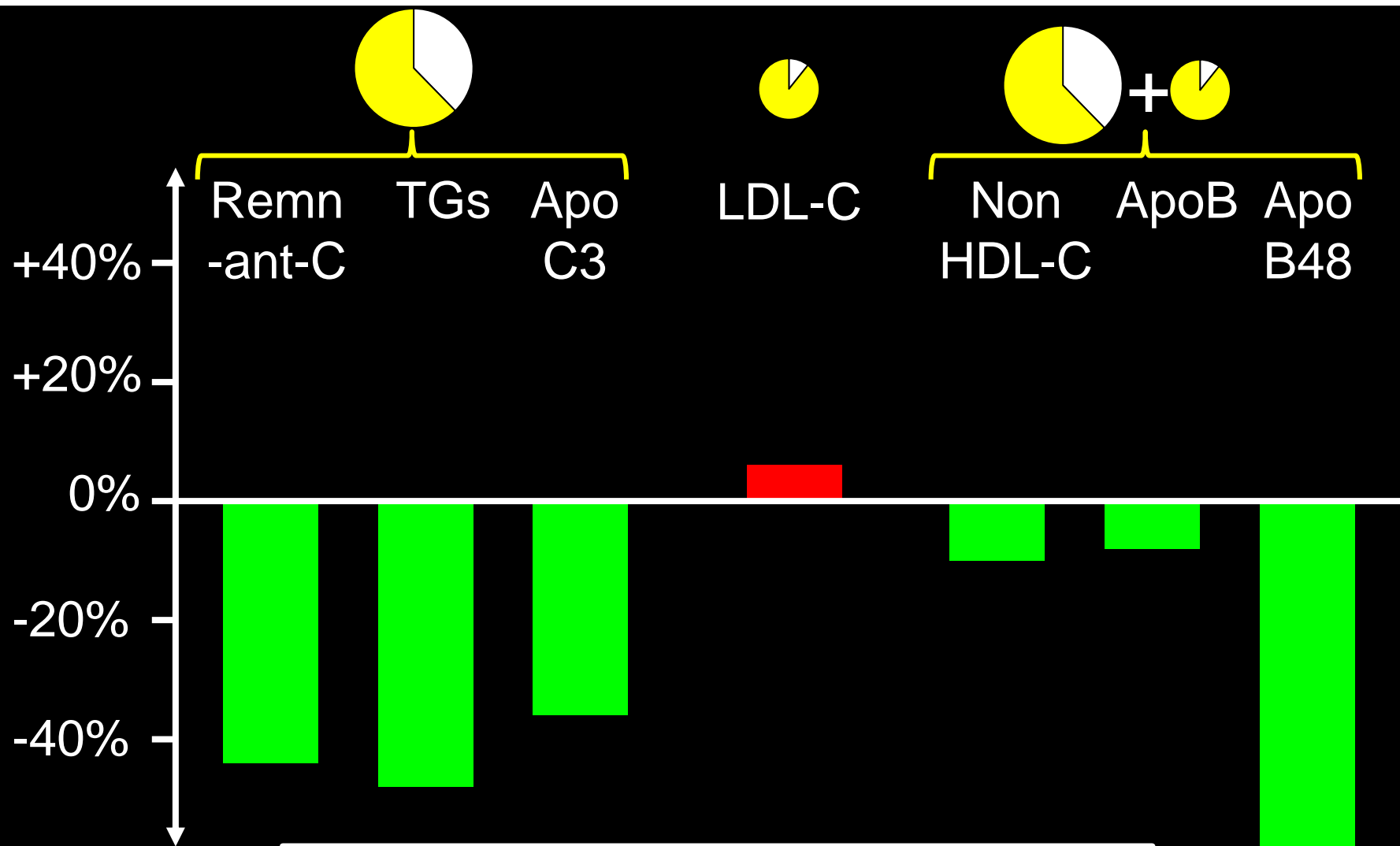
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LDL-C

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Change from baseline

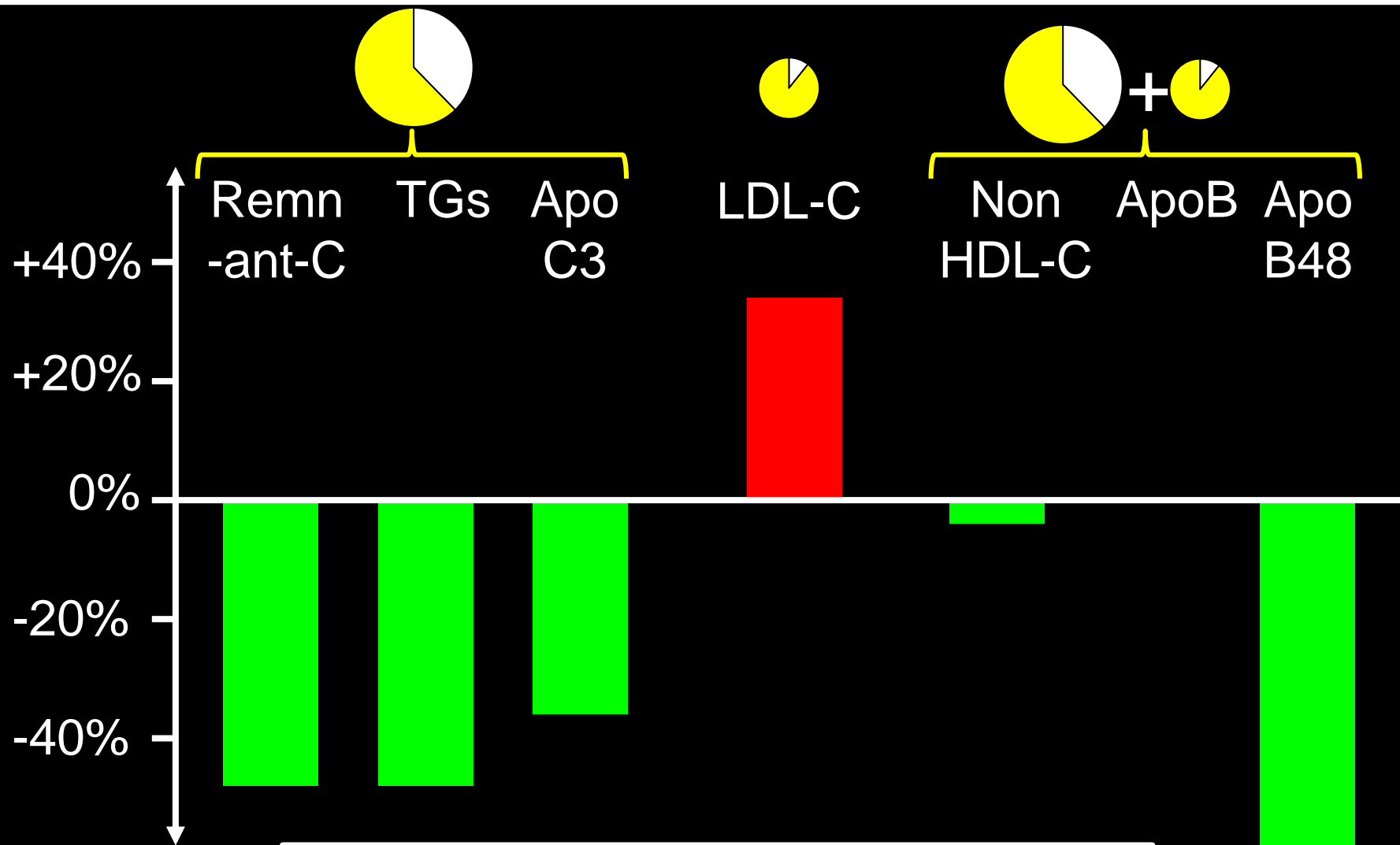
K-877 0.1 mg BID
128 Japanese

Baseline TG

367 mg/dL = 4.2 mmol/L

LDL-C

117 mg/dL = 3.0 mmol/L



Change from baseline

K-877 0.2 mg BID

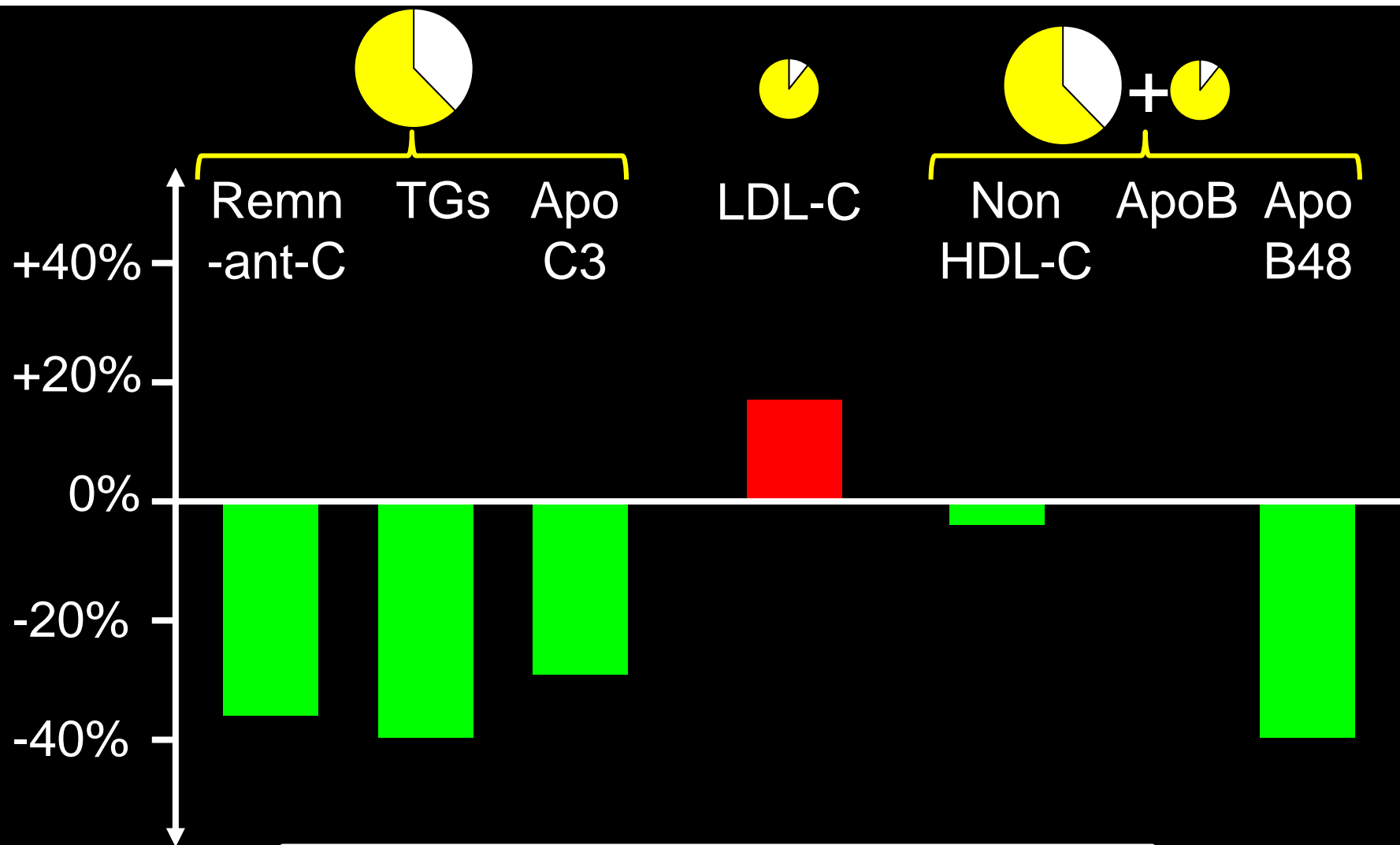
54 Caucasian on statin

Baseline TG

LDL-C

266 mg/dL = 3.0 mmol/L

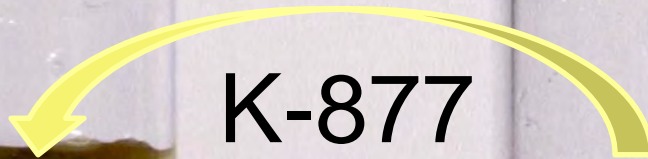
83 mg/dL = 2.2 mmol/L



Change from baseline

↑ LDL

↑ Remnants



K-877

Improved
lipid
profile

↑ CVD

↑↑ CVD