Factors Leading to Residual Risk and New Treatment Strategies

Inadequate LDL Control

 Unable to achieve LDL goal despite intensive therapy

Residual Risk
despite
intensive statin
therapy to
achieve LDL-C
goals

Current Clinical Trials

- Novel fibrates
- Rx omega-3 fatty acids at higher doses

New Investigational Approaches

- Antibodies
- Antisense oligonucleotides
- Small interfering RNA

Atherogenic Particles

- Atherogenic TG-rich lipoproteins
- Atherogenic lipoproteins (small dense LDL and/or intermediate LDL)

Effects of EPA on Plaque Progression

	Increase	Decrease
Endothelial Dysfunction/ Oxidative Stress	Endothelial functionNitric oxide bioavailability	 Cholesterol crystalline domains Ox-LDL RLP-C Adhesion of monocytes Macrophages Foam Cells
Inflammation/ Plaque Growth	- EPA/AA ratio - IL-10	 IL-6 ICAM-1 hsCRP Lp-PLA₂ MMPs
Unstable Plaque	Fibrous cap thicknessLumen diameterPlaque stability	Plaque volumeArterial stiffnessPlaque vulnerabilityThrombosisPlatelet activation