CANTOS: Residual Inflammatory Risk and Residual Cholesterol Risk: Critical Analysis from the CANTOS Trial

Purpose: CANTOS subgroup analysis for evaluation of the role of residual inflammation in atherothrombosis and to study the anti-inflammatory effects of canakinumab, an interleukin-1 β inhibitor, on recurrent cardiovascular risk.

Trial Design: Randomized, placebo-controlled, double-blinded, international (39 countries, >1000 sites) trial comparing canakinumab (50,150 or 300 mg SQ q3months) to placebo in 10,061 stable prior MI patients with elevated high-sensitivity C-reactive protein ((hsCRP) level (≥2 mg/liter). 3.7 years median f/u. Inflammatory markers (hsCRP or IL-6) and LDL-C analysis compared to baseline values and to each other to evaluate.

Primary Endpoints: Non-fatal MI, stroke, or cardiovascular death.

	hsCRP < 2 mg/L with canakinumab	**hsCRP ≥ 2 mg/L** L with canakinumab
Primary endpoint	25% reduction, P<0.0001	P = 0.11
Cardiovascular death	31% reduction; HR = 0.69; p = 0.0004	P = 0.95
All-cause death	31% reduction; HR = 0.69; p <0.0001	P = 0.56

Conclusions: The amount of reduction in levels of hsCRP (reduction in inflammation) during canakinumab treatment may be useful in identifying patients who benefit the most from treatment (lower rates of the primary CV endpoint) in the long-term.

Presented by: Paul M Ridker, 2017, Anaheim, CA