# Cholesterol Theory: Elemental Constituents

The following is provided for discussion and use as a working document that can be refined or enhanced to address designations that have evolved in cellular physiology over the past several decades due to the lack of an explicit model from which epigenetics and be explained, verufied and applied.

HDL ("Good") Cholesterol is TNFα/TGFα; aka calnexin

LDL ("Bad") Cholesterol is TNFβ/TGFβ; aka calmodulin

HDL and LDL are antagonistic and a ratio range is TBD

LPA is bioidentical to oxLDL. It is the enzyme calcineurin.

HDL uses the glutamic acid based trefoil for binding; i.e. DNAJB1

LDL used the leucine amino acid based trefoil for binding; i.e. DNAJB2

Statins reduce the levels of TNFβ/TGFβ ---the "bad" cholesterol.

Triglyceride is another designation for calcineurin.

The following is provided for discussion purposes.

**Cell Alignment: For Discussion Purposes**

**TNF-Alpha: TGF- Alpha (Calnexin) Density**
Calcium – threonine – magnesium (BRCA1)
Calcium – serine – magnesium (BRCA2)
Calcium – cysteine - magnesium (BRCA3)
For Discussion:
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3436948/

**TNF-Beta: TGF-Beta (Calmodulin) Motility**
Calcium – phenylalanine – magnesium (HRas)
Calcium – tyrosine – magnesium (KRas)
Calcium – tryptophan – magnesium (NRas)

**TNF-Gamma: TGF-Gamma [VEGF] (Calcineurin) Modulatory Enzyme**
Iron – serine – Manganese
Iron – cysteine – Manganese
Iron – threonine – Manganese

The following are examples of bioidentical "enzymes" that have evolved with various designations; e.g. AKT, mTOR, PTEN, NF-kB, and MYC.