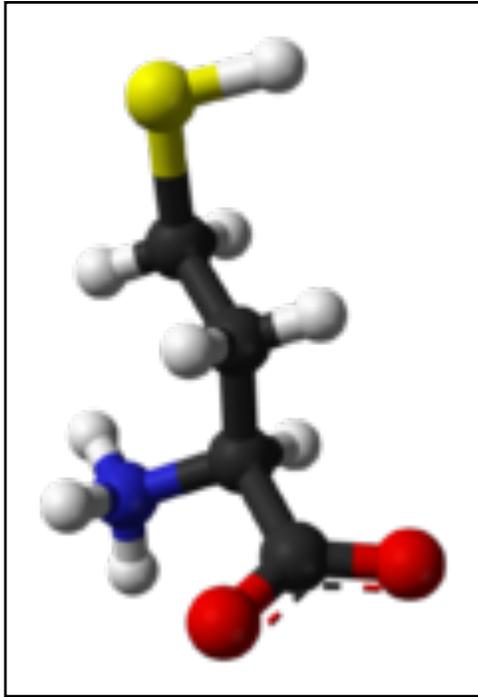


# Predicting Chronic Disease

Homocysteine - Measurable, Treatable

*“Blood Biomarker Predicts Risk Including: Alzheimer’s and Cardiovascular Diseases”*



Homocysteine (Hcy) occurs naturally in the bloodstream and comes from an amino acid called “methionine”, which is present in all animal and vegetable protein. Too much Hcy is harmful to tissue. In the body methionine is degraded to homocysteine. Nutrients like vitamin B6 converts homocysteine into harmless

amino acids.

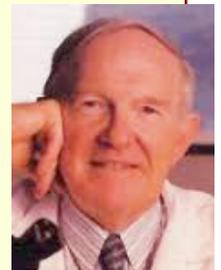
Vitamin supplementation does not always prevent disease implying that another mechanism may be involved. Dr. McCully, the father of homocysteine recognizes the role of inflammation and infection. These are the root-causes of homocysteine elevation.

## Homocysteine Pioneer

Dr. Kilmer McCully had a controversial view on the cause of heart disease in the 1960s. It did not jibe with the emerging and well-funded view on cholesterol and disease.

Recently Harvard Medical School and others said that cholesterol isn’t that important after all and what Dr. McCully determined about homocysteine is critical.

In 1997, Dr. McCully declared that “elevated blood homocysteine is estimated to account for at least 10% of the risk of coronary artery disease.” He clearly recognizes that no one thing is responsible for all disease, as human physiology is very complex.

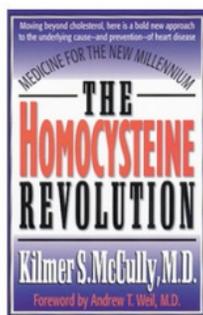


An article he wrote in 2009 nicely links Alzheimer’s disease and homocysteine.

## Homocysteine Levels Linked to Alzheimer’s Disease Risk

Homocysteine is a strong predictor of the potential for Alzheimer’s. A 2002 study showed that as homocysteine increased in the blood, so did the future potential for AD. An increase in plasma homocysteine of “5” translates to a 40% greater risk for Alzheimer’s.

Homocysteine provides proof for the strong connection between



cardiovascular and Alzheimer’s diseases. “The magnitude of this affect (with AD) is similar to that shown in the Framingham study for cardiovascular diseases and stroke.”

Homocysteine is useful in diagnosis as the elevation in its level in the body precedes the onset of Alzheimer’s and cardiovascular diseases.