Importantly, it has been derived a most essential empirical observation, which is that eHcy may merely be a most obvious example of the multiplicity exhibited by methylene bridges which attach to and promote structural development and structural polymerization as well as which sequester current emitted from oxidation of Hydride or emitted current from carbocation rearrangements in molecules with hydridic character.

PEMT translates two methylene bridges protected within phosphatidylethanolamine between the Ethanolamine lead group and the oxonium exhibiting phosphate group, to exhibit only one methylene bridge while attaching three CH3 molecules to the open locations upon the ethanolamine lead group to produce choline in place of ethanolamine. The potential of methylene bridges to attach to structures and polymerize is diminished as a result and the packing of hydride into ethanolamine counteracts the methylene bridges sequestration and counteracts the susceptibility of methylene bridges to being commandeered, allowing inner membrane phosphatidylethanolamine to capture current and PEMT to package ethanolamine lead groups by packing hydride into the lead group and attach ether linked fatty enriched fatty acids to the tails as insulation.

Hcy um/L at 15 without or regardless of exhibition of symptoms, 10 with symptoms, otherwise above 6 or 7, but increasingly with levels further above 3.7, are thresholds for asymptomatic inpatient admittance, symptomatic inpatient admittance if not already admitted, therapeutic intervention on any setting, and focused monitoring without regard to admittance status, respectively. Hcy is a methylene bridge cysteine and when any methylene bridge molecule is not methylated or not both methylated and adenylated, or when unencapsulated methylene bridges are not either stabilized, being recycled, being applied in beneficial biosynthetic virtual pipelines, or are not being deteriorated into nonmethylene bridge molecules by transsulfuration, proteolysis, autophagy, ubiquitylation, or otherwise, such bmethykene bridges may be commandeered by unbeneficial pathways such as fibronectin occupation of methylene cysteine bridges to increase free fibrin and deposit methylene bridge fibronectin complexes in tissue such as methylene bridge cysteine fibronectin complexes deposited into cardiac tissue to cause tissue remodeling. Including Ethyl molecules promote methylene bridge activity, particularly polymerization promotion, while methylation stabilizes methylene bridges.

Unmanaged methylene bridges may attach to structure, biologically active molecules, structure, promote polymerization, sequester current in these contexts, display signaling, disrupt hydridic character and carbocation rearrangements to hydridic character, and since energies are involved in structural adhesions in much if not all nuances material if the universe, the essential presumptive nuances of physics, biology and biophysics may be destabilized by accumulated, unmanaged and inadequately available methylene bridges.

Ethanolamine, de novo as nutritionally obtained ethanolamine, but recycled in pathways that can resulted in glyceryl and glucosyl phosphatidylethanolamine excluded by PEMT on its substrate selection, thus, represents this important Duality of methylene used in defense of a space in which biology may

flourish along with its ability to sequester current and useful biological factors which can be overly exhibited or commandeered by less than biologically beneficial conditions.

A review of the lengthy list of required affects if Hcy or eHcy, active in or required for most if not all manifestation of diminished health status, pervasively reveal patterns of methylene bridge dysregulation, causing methylene bridge to emerge as a new most empirical specific encompassing empirical parameter in health and behavior. Particularly because methylene bridges affect the solvation shell or hydration which guides intramolecular and intermolecular interactions, as well as determines hydrodynamic characteristics at least up to 20 angstroms from the molecular surface. Methylene bridge proactive management may replace much if interventional care in developed civilizations, allowing Care infrastructure to be sustained as is with inpatient, outpatient, Office, mobile or home nuances fo care to enable vibrant industry to be sustained and grow with a correlated beneficent effect to health and behavior. This contrasts, clearly, delaying assay and care total methylene bridge mismanagement has been allowed to deteriorate physiology onto emergent or substantial pathology.

A priority is afforded to managing methylene bridges of phosphatidylethanolamine, their direction toward autophagy anchoring as glyceryl versions, their direction through exclusion from PEMT third methylation toward antihistamine function and recycling when glycosylated, as well as their preferred selection by PEMT when lightly glycosylated or unglycosylated. Ethanolamine attaches the fatty acids to ctp – ethanolamine using diacylglycerol or allocated acylglycerol as linkages while this catalytic interaction prefers sn-1,2 diradylglycerol as substrate, result in in major output as phosphatidylethanolamine and some fraction glycerophosphatidylchol7ine. Oxidative phosphorylation, cellular respiration Complex III enabling, essential phosphatidylserine decarboxylase translation of phosphatidylserine to phosphatidylethanolamine occurs at the inner mitochondrial membrane such that sn-1,2 diacylglycerol phosphatidylserine and sn-1,2 diacylglycerol are Selectively preferred as substrate by both phosphatidylserine decarboxylase 1 and phosphatidylserine decarboxylase 2.

These conclusions present how interconnected systems and incentives that promote information sharing and divulgence of information, may be among the most powerful developments among the Universes, particularly if excluding the first instance in which organisms exhibited the inclination to beneficently care for one another. Such inclination, in objective opinion, changed everything that has since emerged and has changed everything that may ever be.

Methylene bridges are practically CH3 methyl groups without the third Hydrogen which is considered to be hydride. Methylene bridges are susceptible to strong withdrawers of electrons and are affected in such regard strongly enough to cause deprotonation, such that assimilation of electrons from flowing 7.2 current, intramolecular current, hydride in intramolecular locations or hydride in unattached structures can be withdrawn to become localized to the electron withdrawing complexes, even when this results in deprotonation, even when this results in a carbocation arrangement or shift in hydridic

character, as well as when this results in a withdrawing of an electron across space between unattached carbocation participants.

5,10 methylene tetrahydrofolate is processed by the enzyme MTHFR to produce 5 methylene tetrahydrofolate which methionine synthase uses to produce methionine. which contributes

Methylene bridges,

Methylene Spacers, Methanediyl group, or Methano factors, all used to indicate methylene bridges, exhibit CH2 with individual linkages of the carbon to other factors, such that when located between strong electron withdrawing groups such as Nitro NO2 linked to nitric oxide biological benefit, Carbon double linked to Oxygen as Carbonyl, and nitril composed of an axial group linked to a Carbon that is triple linked to a nitrogen, exposure to strong bases can result in highly biosynthetic products such as enclaves and carnations, explaining why 7.2 to 7.6 alkaline environmental pH is linked to homeostasis as well as explaining how methylene bridges must be encapsulated or counteracted in the homeostasis alkaline environment.

Because methylene bridges are homologous to CH3 without the third Hydrogen which completes the electron configuration for packed Hydride in which triplets of Hydrogen are known to attach to structures in triplets at one dimensional valley structures in which one of the hydride is structurally dissociated. This dissociation across spanning across obscuring structures and unidimensional structural valleys are obvious similarities to both carbocation or hydride shift including methyl shift and other carbocation as well as methane bridges or methylene spacers which participate in carbocation.

Conditions of structure, energetics or metabolism, including those otherwise involving migration of. circulation of, or circulating monocytes, from a review of the literature, clearly seem to pervasively involve or are empirically differentially characterized by attrition, upregulation, diversion, inadequacy, impedance or increased volume of substrate flow through the CDP -ethanolamine pathway to PEMT and the Lands cycle.

Ethanolamine exhibits two methylene bridges, to which ethanolamine kinase activity contributes a phosphate group to produce phosphoethanolamine, followed by ethanolamine phosphate citidylytransferase attachment or polymerization of the existing phosphate group in phosphoethanolamine using another phosphate group, a hydroxyl attached pentameter and a hydroxyl linked hexameter. Ethanolamine phosphotransferase then attaches glycero molecules to the methylene bridges through an oxygen intermediary. A review if lipid chemistry structural phase progression literature, research and application, clearly links the characteristics of these processes not only with phosphatidylethanolamine movement of current or energy fom inner leaflet of membranes to outer leaflet of membranes such as when PEMT packs Hydride as CH3 around or into a strong electron

withdrawing biosynthetic nitril adjacent to a methylene bridge such as enriched phosphatidylcholine, but also presented are the microstructural, superstructure, phase development progression that differentiates organism structure, function and energetics.

The one hydrogen difference between glycerol and glycol factors suggest that PEMT prefers the extra hydrogen of glycerol to spread the energetics of hydride across the molecule including the fatty acid that is attached to the one methylene bridge, presumptively explaining why phospholipids are characterized by sn-1 fatty acid species and sn-2 fatty acid species because these determine nonresolution/resolution phase interactivity, bending, folding, insulation, shape, twist and writhe of areas between phospholipids, of membranes and plasticity characteristics in general.

Glycosylated tails are less preferred than glycerol tails in PEMT selection of its substrate fraction of available phosphatidylethanolamine while supply of phosphatidylethanolamine by serine decarboxylase and ethanolamine phosphotransferase are presented by the literature as scrutinizing only the sn-1 loci for diradyl glycerol during production of phosphatidylethanolamine as substrate for PEMT. The cdp – choline pathway uses already existing choline processed in the same pathway transactions as ethanolamine, to result in phosphatidylcholine. with diminished focus on enriched diversity of fatty acids. Phosphatidylcholine can be recycled generally through phosphatidylserine decarboxylase, including direction toward trypsin synthesis by MDR2, lipase activity, diesterase activity or direction toward ceramide and toward the sphingolipid signaling pathways which should be managed because are cellular existential challenge response pathways linked to diminished health status response. Sphingolipid signaling pathways should be managed because these can emerge as causal factors of diminished health status if exhibited for extended duration.

Methylene bridge participation has probably eluded requisite centrality because of the Duality of methylene bridges as active structural polymerization promoters and passive susceptibility to strong electron drawing factors, clearly leading analysts toward the electron drawing groups in analytic research to obscure methylene bridges while also being obscured in the effect of methylene bridges to spatial energetics as well obscuring effect to structural energetics or metabolism. The affection of structure to space, factors and monocytes circulating in physiology, as well as the affection by circulating monocytes, enzymes such as carbocated methionine of structure and other circulating material, does not seem to be intuitively represented in experimentation, research, Health, Nutrition, diagnostics, development, therapeutics development, although at interactivity levels, S.O.A.P. objective assessment processes seem to represent homologues hydridic interactivity.

Ethanolamine, phosphoethanolamine, Citidylylethanolamine, diradyl or glycero phosphatidylethanolamine, diradyl or glycero phosphatidylmonomethylethanolamine, diradyl or glycero phospatidyldimethylethanolamine, (palmitate first fatty acid in fatty acid beta oxidation, oleoylate, extended length omega-6 arachidonic acid, Docosahexaenoic acid, omega-3, ether linked, diverse fatty acid) enriched gkycero phosphatidylcholine followed nonresolution/resolution phase lipase/diesterase

freeing of fatty acids which are applied in immunology or shuffled while being reintegrated into phospholipids such as enhanced diversity fatty acid phospholipids and enhanced diversity phosphatidylcholine by LPCAT/MBOAT/Lysoplasmalogenase catalysis, provides a central perspective of ethanolamine shuttling of methylene bridges.

Although the genetic conditions can have enhanced sequelae, these and other extended differential characteristics pervasively involved methylene bridge and methylene bridge cysteine escape fom transsulfuration, recycling, proteolysis, serine proteolysis, tissue plasminogen activator activity, autophagy, ubiquitylation or other excretion and recycling pathways. AP1 which diminishes the cdp-choline pathway at CTP--choline citidylytransferase while both diminishing PEMT and diminishing telomerase replacement of telomeres during each mitotic cellular cycle, compared to SP1 performance of these same changes although SP1 upregulates telomerase instead of diminishing telomerase, provides of differentiating influence in the developmental sequelae following pipelining of ethanolamine to diverse shuffled phosphatidylcholine. The small amount of cdp-choline pathway substrates produced by cdp-ethanolamine pathway enzymes and the small amount of cdp-ethanolamine pathway substrates produced by the cdp-choline pathway enzymes are more than interesting, particularly because through phosphatidylcholine conversion to phosphatidylserine, phosphatidylserine conversion to phosphatidylethanolamine and phosphatidylcholine direction through ceramide, sphingolipid synthesis, and then to hexadecenal and ethanolamine phosphate, as well as PEMT de novo synthesis of choline as enriched phosphatidylcholine, the CDP-Ethanolamine pathway and the CDP-Choline pathway pipeline substrate to one another.

These methylene directed revealing observations open the field of convergent contexts for nutrition medicine, research, diagnostics, and proactive health assurance at the foundational aspects of material of the universe, surmounting the divide between physics and biophysics in biomedical discovery.