

Foundational Program Management Correlates, Mechanistic Links, Dualities and Tuples for KPIs, Tensor Development, Shard or Column Selection

This documented is not intended attributed causality to any entity, group, individual, system or context for the exhibition of diminished Human outcomes. The compendium of research with which this document is associated implores that the factors, systems, linkages, correlations, associations, mechanistic links, causal iterations, dualities, derivatives, sigmoids and graphs, regardless of how precisely they bring into observational levels the reasons which diminished outcomes occur, all are nuances of systems which pervasively act upon, influence, interact with and shape outcomes exhibited in the status quo. These factors are presented here because they are important do analyzed, understanding, document, and acknowledge because they bring intangible nuances of the universe, the biome, behavior, physiology and biology, all into observability to enable modeling, inference into other systems, and understanding of Human opportunity to transcend the status quo and more strongly advocate for the continued, improved, and extended exhibition of vital being and the Human experience.

- 1) The National Oncological Resolution Act of 1971. P.L. 92-218.
- 2) Brown and Letts. "On Some Compounds of Dimethyl thetin." Proceedings of the Royal Society of Edinburgh. Volume 8. Pages 382 to 386. The Year 1875.
- 3) "On the Oxidation Products of Picoline, Thetines and Their Derivatives Dimethyl – Thetin and its Compounds. From the Transactions of the Royal Society of Edinburgh." Letts, Letts and Dewar. Dewar. Pamphlet version January 1, 1878.
- 4) Flexxner and Pritchett. "Flexner Report." Citation as "Medical Education in the United States and Canada. A report to The Carnegie Foundation for the Advancement of Teaching." 1910.
- 5) "The Flexner Report. 100 Years Later." Yale J Biol Med. Volume 84. Number 3. Pages 269 to 276. September, 2011.
- 6) (Hcy, MBCS or methylene bridge cysteine is an allusion to or abbreviation for the highly toxic sulfur bearing cysteine amino molecule produced after adenosine is attached to methionine to ionize the sulfur of methionine after a carbocation known as hydride/methylgroup shift resulting in transmethylation/methyltransferase removal of CH₃ becoming a producer of an detrimental oxidation number exhibited by the cysteine molecule after abdicating a CH₃. Hcy is a methylene bridge cysteine which is also highly reactive with pervasive biologically active molecules, produces almost all pathology exhibited with disease even without exhibition of a bona fide disease, and produces deposition as well as deterioration of factors that result in tissue remodeling that is also essential in every disease.) eHcy is an abbreviation for elevated Hcy. Thetin (Hcy or methylene bridge cysteine) methyltransferase (transferase) abbreviated as THMT, is a version of methyltransferase or methyltransferase. This document has been amended to use methylene bridge cysteine or MBCS instead of using the full name for Hcy. Pubchem, National Center for Biotechnology Information. National Library of Medicine. United States National Institutes of Health. Pubchem Number 379979689. pubchem.ncbi.nlm.nih.gov/substance/379979689
- 7) Thetines or thetins are sulfur exhibiting molecules or amino acids, particularly sulfones or sulfur exhibiting amino acids, which are substrate for methyltransferases, although these sulfones or thiols are essential components of circulatory fluids and hematopoietic fluid factors because the Sulfur performs in many of the same capacities as Oxygen, is situated in the periodic table as replacement for Oxygen before the great oxygen event that increased oxygen levels in the biome enabling increase in size of organisms, particularly mammals, but also because sulfur availability occupies disulfides, particularly within the enzyme thetin hcy methyltransferase to prevent it from being deactivated from inadequate sulfur and thereby preventing intramolecular linkages from incurring in this enzyme to cause it to become deactivated in a gelatinous phase. Rubisco is the most mot abundant enzyme in the environment, performing production and injection of 5 Carbon sugars between pentose phosphate pathway and Krebs cycle or during photosynthesis, while thetin hcy methyltransferase/methyltransferase is one of the most abundant enzymes in physiology. Sulfur inadequacy, choline inadequacy, enriched phosphatidylcholine inadequacy, Selenonium inadequacy, 6s 5678 tetrahydrofolate inadequacy, trimethylsulfonium or Sulfur Amino acid inadequacy, thetin/thetin or sulfone inadequacy, Trimethylmethylglycine/Glycine Betaine inadequacy, s methylmethionine sulfonium inadequacy, B12 Methylcobalamin inadequacy or Cobalamin processing dysfunction, Methionine Synthase Inadequacy, Methionine Synthetase inadequacy and B6 inadequacy, along with S adenosyl Hcy hydrolase, (SAH), dysfunction or inadequacy, all re foundational aspects of disease, detrimental behavior, and potential for exhibition unsustainable vital being or unassured vital being. Calcium in soluble and absorptive versions are beneficial but become essential because environmental electromagnetic exposure causes version of nitric oxide synthase to deplete Ca²⁺ and cause systemic gradients of Calcium depletion from bones to tissues being depleted of Ca²⁺, increasing circulating C2+, requiring vitamin K2 and causing the patterns of disease, proliferating cellular entity migration, and stem cellular migration, as well as agrin (agrin is principle guiding factor in physiological function enabled by hydridic and other fields beginning at conception, coordinating with the hydridic fields that constitute consciousness beginning at conception to emerge continuously into shaped nuances cognitive function and processing during and after development, as well as which enable the function, maintenance and regeneration of tissues, organs, physiology, neurological pathways, and extracellular matrix and connective tissue which supports physiology and cognition.) function in managing both noncirculating stem cellular entities and managing of circulating stem cellular entities, all to be commandeered to exhibit the disease and patterns of disease progression observed in civilizations. Agrin injection or grafts to Cardiac extracellular matrix result in regeneration of Cardiac tissue and regeneration of Cardiac organ function. Decellularization and recellularization using stem cellular grafts, results in regeneration cardiac and pulmonary organs and exhibition of spontaneous rhythms in these organs outside of physiology where eHcy and other acute phase factors are not exhibited to produce diminished function of these essential organs.
- 8) Active hexose correlated compound, SP1 inhibitor of Curcumin, AP1 inhibitor such or Berberine, and an inhibitor of NOS2 or Curcumin, as well as G4 or G quadruplex stabilizers available in the literature to clear latent microbial or latent viral conditions. Active hexose is choline kinase alpha inhibitor to downregulate the pathogenic upregulation of the CDP – Choline pathway that produces unenriched phosphatidylcholine. SP1 is activated by destabilized G4 or G Quadruplexes and SP1 causes microbes to downregulate pathology to become obscure from immunology, while SP1 upregulates PD1 and PDL1 which mask diseased or microbe afflicted cellular entities from being found circulating immunological cellular entities, while also SP1 inhibits PENT1/PENT2/PENT3, along with SP1 downregulating both CD4+ and CD8+ both transcriptionally and at the cellular surface, to become the major component of latent and other disease involved in atypical cellular proliferation. However, SP1 upregulates Telomerase which replaces telomeric repeats in DNA after these are removed during each cellular mitotic or division cycle, such that when G4 Quadruplexes typically located in cysteine rich telomere regions are accessed, Telomerase promotes unimpaired regions that would be impaired from telomere attrition, SP1 is typically located in such G4 quadruplex leaflets. AP1, however, inhibits Telomerase such that its invoking by microbes, viral entities and disease limiting to itself because telomere depletion results in senescence, chromosome fusion and prevention of cellular lineages from continuing to divide. SP1 prevents AP1 from being limiting to itself, and the G4/SP1 axis is integral to microbial, viral and other pathology that emerges to cause atypical cellular proliferation in particular. G4/SP1, however, also sequester L Arginine and CA²⁺ from NOS2, producing a cycling production of citrulline from arginine that keeps macrophages programmed into acute phase activity instead of being directed toward arginase production of ornithine which as a resolution phase programming mode for macrophages. The literature presents a litany of G4 stabilizers which, along with these factors, should be able clear latent microbial and viral conditions consistently and stably among Human populations. Interestingly, active hexose correlated compound supplies substrate into the pentose phosphate or hexose monophosphate shunt pathway that is inhibited when PENT is inhibited or during injury, typically when P53 is upregulated by these conditions, such that activation of the Pentose Phosphate Pathway or Hexose Monophosphate Shunt occurs, reactivating synthesis of nucleotides, reactivating production of about 60 percent of NADPH, jumpstarting biosynthesis, and activating the RuBisCo pathway, the most abundant enzyme on Earth that also supplies substrate to the Krebs Cycle. Information. "Quadruplex Ligands." Cellular Cycle. Volume 19. Number 18. Pages 2298 to 2313. September 2020. Information. "Quadruplex Structure." Biochemistry. Volume 53. Number 16. Pages 2581 to 2593. 4th Month, 29th Day, 2014. Information. "Active Hexose." PLoS One. Volume 12, Number 7. Article e0181729. 7th Month, 20th Day, 2017.
- 9) phosphatidylcholine for fibrosis conditions including Cystic fibrosis as a frontline therapy. EMF protection protocols for viral infections involving cardiopulmonary tissue because electromagnetic fields luminal express of NOS2, Phospholipase D and phosphatidylcholine specific phospholipase C gamma causing catabolism of phosphatidylcholine from lipid membranes and freeing the Ca²⁺ the surround the phospholipid lead groups, while also this same phospholipase depletes the major pulmonary surfactant as DPPC which as 2 palmitoyl exhibiting phosphatidylcholine as well as is expressed along with NOS2

- and Phospholipase D in the alveolar lumina. MATH+ therapy and HAT therapy both produce 97 percent or more therapeutic success in hospitalized afflicted by pulmonary viral conditions of epidemiological prevalence in this era. Because these same pathogenic factors are expressed resultant of viral affliction, particularly NOS2, and depletion of L-arginine in particular causes uncoupling of NOS2 to produce acute phase, and almost every if not every virus requires expression of NOS2 in particular, managing NOS2 therapeutically or with Curcumin, managed API such as with berberine, managing GSK3B such as with curcumin, and managing Phospholipase D as well as managing Phospholipase C gamma, all can accompany MATH+ and HAT therapy.
- 10) Phosphatidylethanolamine produced from the CDP ethanolamine pathway and Phosphatidylethanolamine produced from Phosphatidylserine, newly produced with either unglycosylated tails lightly glycosylated tails are subtracted for PEMT which is a core, ore lead methyltransferase involved in cleaning the environment through production of PMME, PDME and finally enriched phosphatidylcholine that enables all manner of trypsin, tissue plasminogen activators, serine proteases,
 - 11) PEMT results integration of species of fatty acids into PMME, PDME, and phosphatidylcholine including extended length arachidonate, DHA, Palmitate first fatty acid species in fatty acid oxidation that produces other fatty acids, oleoylate, docosaheaxaenoic acid, other omega 3 fatty acids, and ether linked fatty acids that insulate cellular entities and enhance capacitant potential, as well store interventional and acute phase resolving molecules. These can include resolution factors such as Prostanoids, Poxytins, Elovonoids, resolving Prostaglandins, Protectins, Resolvins, Maresins, free resolution, Fatty Acids including DHA, EPA, Palmitate, Oleoylate, High molecular mass Hyaluronan, Extended Length Arachidonate, M2 Macrophages, Mast entities, Phagocytes, other factors the resolve the similarly important acute phase factors that are exhibited as intervention factors for impairment, injury, xenobiotic factors and response to factors that can cause disease or impairment. This category factors also include nonacute phase release of fatty acids by other phospholipases that do not require acute phase and some of which do not require depletion or release of Ca⁺, particularly lands cycle factors such as LPCAT, MBOAT, Acyltransferase reintegration of Lyso phosphatidylcholine and fatty acids, reintegrating these as phospholipids such as phosphatidylcholine.
 - 12) StAR proteins perform transport of lipids or cholesterol particularly by integrating cholesterol into the pocket of START domains of phospholipids such as Phosphatidylcholine. Particularly, cholesterol at cellular membranes, including the extracellular cellular interface of the plasm membrane, is integrated into the pocket of the START domain, where it can be transported to the mitochondria where it is released for carnitine assisted transit of the mitochondrial membrane, Cytochrome P450 assists in translating cholesterol into hormones including numerous versions such as androstenedione, testosterone, estrone, estrogen, estradiol and estriol, of which Estradiol evenly activates Estrogen receptors Alpha and Beta, resulting in regulated, efficient, stable transcription of PEMT1, PEMT2 and PEMT3, while event activation of estrogen receptors also prevents API dysregulation from inhibiting PEMT in a way that is pervasively participative in disease. S:1 is a similar inhibitor of PEMT which is required in pervasive latent diseases including Latent viral pathology. Information. "StAR Protein." J Endocrinol. Volume 164. Number 3. Pages 247 to 253. March, 2000.
 - 13) Maw. "Thetin - Hcy Transmethylase. The Distribution of the Enzyme, Studied with the Aid of Trimethylsulphonium Chloride as Substrate." Biochem J. Volume 72. Number 4. Pages 602 – 608. Volume 8th Month, the year 1959.
 - 14) Observed clinically optimal levels are about 6 or 7 um/L although observed optimal levels in individuals can be between 10 um/L and 3.7 um/L, suggesting that 3.7 may be therapeutic objectives with acceptability at 5 or 7 um/L with 20 um/L being useful when obtaining the other levels may require intensive therapeutic application. "Hcy." Health Matters Website. Healthmatters.com
 - 15) "Short Review on the Synthesis of Thiazolidine and B – Lactam." World Journal of Organic Chemistry. Volume 1. Number 2. Page 24 to 51. 2013.
 - 16) Zeisel. "A Brief History of Choline." Ann Nutr Metab. Volume 61. Number 3. Pages 254 to 258. 2012.
 - 17) "Choline." Fact Sheet for Health Professionals. Food and Drug Administration. Office of Dietary Supplements. United States National Institutes of Health.
 - 18) Hill – Burton Act. Office P.L. Volume 79 – 725. 60. S1040.
 - 19) Certificate of Needs Legislation. National Council of State Legislators. December 12, 2021.
 - 20) "Hill – Burton Free and Reduced Cost Healthcare." Health Resources and Services Administration.
 - 21) "Certificate of Need Legislation." Mercatus Center. 4th Month, 17th Day, 2017.
 - 22) "Do More Hospital Beds Lead Higher Hospitalization Rates? A Spatial Examination of Roemer's Law."
 - 23) "Doctors' 'Planned Massive Participation in Work Furlough' 'Results in Improved Statistical Clinical Outcomes'." BMJ. Volume 320. 6th Month, the year 2000.
 - 24) "Doctors' 'Planned Massive Participation in Work Furlough' 'Statistical Outcomes'." Soc Sci Med. Volume 67. Number 11. Pages 1784 to 1788. December, 2008.
 - 25) "Narrow Networks." Health Affairs Journal. Volume 36. Number 9. 2016.
 - 26) "Maternal Choline Supplementation." J Nutr. Volume 147. Number 11. Pages 2083 to 2092. November, 2017.
 - 27) Digital Transition and Public Safety Act of 2005.
 - 28) Centers for Disease Control Yearly Changes in rates of Vital Being Data, 1950 to 2019. United States Center for Disease Control.
 - 29) National Energy Information Agency Data on Yearly Changes in Electricity Production. 1950 to existing year. National Energy Information Agency.
 - 30) "Hcy, the Methylene bridge cysteine with toxic oxidation characteristics." A History in Progress." Nutr Rev. Volume 58. Number 7. Pages 193 to 204. July, 2000.
 - 31) "Role of Hcy, the methylene bridge cysteine, with toxic oxidation characteristics in the Development of Cardiovascular Disease." J Nutr. Volume 14. Number 6. 2015.
 - 32) "Hcy, the methylene bridge cysteine with toxic oxidation characteristics. From Disease Biomarker to Disease Prevention." J Intern Med. Volume 290 Volume 3. Pages 826 to 854. October, 2021.
 - 33) "Expressions and Applications." Theoretical Population Biology. Volume 90. Pages 29 to 35. December, 2013. Sigmoid or Graph of Outcomes Expectation.
 - 34) "Cost Effectiveness of Vitamin Therapy to Lower Plasma Hcy Levels for the Prevention of Coronary Heart Disease. Effect of Grain Fortification." JAMA. Volume 285. Number 8. Pages 936 to 943. 2001.
 - 35) "Hcy, the methylene bridge cysteine with toxic oxidation characteristics." Clinical Chemical Laboratory Medicine. Volume 42. Number 3. Pages 307 to 310. 3rd Month, 2004.
 - 36) "Differences in Hcy, the methylene bridge cysteine with toxic oxidation characteristics." Scientific Reports. Volume 10. Article 17401. 2020.
 - 37) Gompertz, Makeham sigmoid is strongly similar and correlative to Hcy differences when age is used for correlations.
 - 38) Pubchem Identifier 1040. Phosphatidylethanolamine Methyltransferase. National Center for Biotechnology Information. National Library of Medicine. National Institutes of Health. PEMT inhibition and upregulation are essential in all Human Disease and deteriorates the neurological basis of Social Behavior, as well as produces choline deficiency because PEMT1 and PEMT2 are required for de novo synthesis of enriched essential beneficial versions of phosphatidylcholine.
 - 39) Methylene Bridge systems (Hcy or MBCS, clinically relevant as elevated or eHcy) known since 1810. Lecithin, or phosphatidylcholine known of since the 1700s. Dimethylthetin known to manage eHcyat 700 times typically applied therapeutics and has been known of since 1878 or earlier.
 - 40) "Dietary Choline Requirements of the 'Female Gender'. Effects of Estrogen and Genetic Variation." American Journal of Clinical Nutrition. Volume 92. Number 5. Pages 1113 to 1119. November, 2010. "PEMT1, PEMT2 and PEMT3 are derived from estrogen and preferably estradiol activation of Estrogen Receptor Alpha and Estrogen Receptor Beta, evenly, which then activate the 13sequence perfect estrogen response element where PEMT1, PEMT2 and PEMT3 are transcriptionally activated in all Human Gender variations." Choline, Folate, 6s 5678 Tetrahydrofolate, Thetins/Thetines such as S – Methyl Methionine, S – Methylmethionine Sulfonium, B Vitamins, Betaine, trimethylsulfonium, trimethylselenonium, B12 Methylcobolamin support diminishing eHcy through recycling and through transsulfuration pathways.
 - 41) Choline Kinase Inhibitors. Patent MX2014003491A. "It is a mystery why more information about these therapies are not publicly, legislatively and procedurally acknowledged among developed civilizations."
 - 42) Choline Kinase Inhibitors. Patent US2013026114A1. "It is a mystery why more information about these therapies are not publicly, legislatively and procedurally acknowledged among developed civilizations."
 - 43) "Inhibition of Choline Kinase by Selectively 'Therapeutic' Purinyl-6-Histamine." Biochemical Pharmacology. Volume 23. Issue 7. Pages 1227 to 1230. 4th Month, 1st Day, the year 1974.

- 44) Choline Kinase inhibitors, known of since the 1910s in antihistamine therapy, one of which, Purinyl-L-Histamine which has been known of since the before the 1970s, inhibit choline kinase alpha, preventing the defacto upregulation of the CDP – Choline pathway which occurs when PEMT is inhibited. This upregulation of the CDP – Choline pathway is required in almost every disease and is constitutive cause of detrimental changes when PEMT has diminished function.
- 45) Choline, Folate and Betaine as N,N,N Glycine Betaine, in a particular study, observed that these factors being instrumented were correlated with alleviation of no longer exhibited vital functions, thereby alleviated clinical nuances where physiological functions had become abated.
- 46) History of Lecithin and Phospholipids. ISBN 978-1-928914-86-0.
- 47) “‘Pandemic’ ‘Ablates’ Methyl Group.” Med Hypothesis. Volume 149. Article 110543. 4th Month, 2021. “Strong deterioration of Methyl Groups that would optimally otherwise be used by PEMT to produce Phosphatidylcholine are central enablers of disease, including those of modern epidemiological anomalies.”
- 48) “Crispr – Mediated Genome Editing and ‘Human Outcomes.’” Gene Dis. Volume 3. Number 4. Pages 244 to 251. December, 2016.
- 49) The Social Transformation of American Medicine. Starr. ISBN 0465079342.
- 50) When every region is ready, the usage of permanent magnet energy capability does not require substrate or fuel, generates energy for magnetic field interacts, produces heretofore unachieved size to energy production ratios, produces no pollution or byproducts, provides indefinite supply of energy and achieves the ability achieve much more energy capacity than any implemented capability otherwise. Permanent magnet solutions for energy are useful in generation energy, IOT applications, propulsion, for transportation and any other application has only costs to maintain permanent magnet devices. Civilizations globally can have low maintenance achievable power infrastructure, stabilizing civilizations globally. This reshape and disrupt the status quo for civilizations and organizations globally, including disrupting pollution, particulate and other factors that diminish human outcomes. Organizations must always consider displacement of civilization factors when implementing innovation, such as how these effect industries, humans and economies, although the environment and communities of Human are essential, also, in how these benefit from pollutionless energy sources. Information. “Permanent Magnets and Magnetic Energy.” Physics Forums Website. Physicsforums.com. Calnetix has developed commercial systems, among other organizations, which implement permanent magnet energy. Calnetix.com
- 51) Solutions are also available that derive water directly from the Atmosphere, sometimes implemented to produce massive levels of water for populations or for application such as agriculture, development and stabilizing civilizations and populations. Watergen, Quenchinnovations, and many other organizations produce systems and technologies that derive water from the air. It’s recommended that performance massive levels of water production at boundaries of large aquatic entities because production levels of water rely upon thermodynamic and hydrodynamic characteristics.
- 52) These solutions are also among the capabilities offering rapid translation of research, development and innovation for use in program management and solution implementation. Organizations and civilizations implementing other sources of energy production may utilize these achieve carbon neutrality even during continued utilization of other modalities of energy production.