NMT UC Post-traumatic Stress Disorder Pathway (PTSD)

H-MB = human mind-body

M-MB = microbial mind-body

H/M-MB = human/microbial mind-body = H/M mind-body

Consider the PTSD pathway for any dysfunction of learning, memory, and recall, whether PTSD symptoms or traumatic experiences are part of the clinical picture, or not.

1) TFS (transformed-from state) and TTS (transformed-to states) of the system:

a) **The TFS (transformed-from system state):** Create a brief statement that describes the subject system in terms of current undesirable conditions and behaviors. Emphasize system characteristics related to the subject matter of this NMT clinical pathway. The subject system is usually the mind-body of the person we are working with, but the concepts of any NMT pathway may be applied as a lens through which to observe and transform any system, e.g., we might view the conditions and behavior of some corporation or business through the lens of any NMT clinical pathway. Static MRT (muscle response test) for the total system burden (TSB) that this state seems to the body as a $\log_{10}1000$ metric.

b) **The TTS (transformed-to system state):** Create a brief statement that describes the subject system in an idealized, perfected, healed, and transformed state, with emphasis on characteristics related to the subject matter of this NMT clinical pathway. Static MRT for the TSB (total system burden) that this state seems to the body as a $\log_{10}1000$ metric.

c) Apply the following UCS (universal correction statement) with the intention to resolve any IFs (information faults) that may constitute an obstacle to manifesting the intended transformation: **"Shall the H/M-MB now: Project its awareness, attention, belief, and intention into all times and dimensions of the undivided**

universal field of consciousness and identify, accept, and release attunement to all events, IFs, and IFs-h (IFs that hide subject IFs from awareness) that compromise awareness of, or define into existence, the transformed-from system state?" <MRT-S-a>, "Or, that cause this transformation to seem dangerous, undeserved, or impossible to achieve?" <MRT-S-a>, "Create awareness, acceptance, attunement, and belief of all corrective events and TrIQs (transformative information quanta) to define into existence the transformed-to system state?" <MRT-S-a>, "Create the intention to collapse the quantum potential of the field's reality quanta to manifest this transformation?" <MRT-S-a>, "Create optimal attunement and coherence to the source of creation, innate intelligence, and the consciousness of healing and accept the role of co-creator of all experienced reality, NOW?" <MRT-D-c>,

2) **"Shall the H/M-MB now: Project its awareness, attention, belief, and intention into all times and dimensions of the undivided universal field of consciousness and efficiently survey subject system conditions related to the following queries?" <MRT-S-a>, "Identify, accept, and release attunement to all events, IFs, and IFs-h** (IFs that hide subject IFs from awareness) **that define into existence the transformed-from system state?" <MRT-S-a>, "Or, that cause this transformation to seem dangerous, undeserved, or impossible to achieve?" <MRT-S-a>, "Create awareness, acceptance, attunement, and belief of all corrective events and TrIQs to define into existence the transformed-to system state?" <MRT-S-a>, "Create the intention to collapse the quantum potential of the field's reality quanta to manifest this transformation?" <MRT-S-a>, "Create optimal attunement and coherence to the source of creation, innate intelligence, and the consciousness of healing and accept the role of co-creator of all experienced reality, NOW?" <MRT-D-c>,** Hold this MRT intention for each section that follows. Refresh this awareness and intention with each MRT pulse. The dynamic MRT end point signals that the survey is complete, awareness is optimal, and this transformation is to be informationally realized.

"Shall the H/M-MB now allow optimal awareness and correction of the following conditions with attention to CNS, Autonomous NS, and cell and cell network information processing?":

(autonomous N.S. = Sympathetic N.S., Parasympathetic N.S., Enteric N.S., Autonomous N.S. of the spinal cord, Autonomous N.S. of the heart, Lymphatic-Immune Information Processing System)

a) **“Conditions of mind-body orientation in present-time and present-space consciousness?” <MRT-S-a>, “Conditions of NMT practitioner - client therapeutic entanglement, mind-body dialog and response?” <MRT-S-a>, “Present-time awareness and autonomic response to environmental conditions of danger, safety, and opportunity for beneficial social engagement?” <MRT-S-a>, “Optimize present-time-space orientation, therapeutic entanglement, mind-body awareness, signaling dialog, and response and attunement to all TrIQs and corrective events required to manifest the transformed-to system state as experienced reality?” <MRT-D-c>,**

b) **“Adverse mental and emotional posturing that contributes to the transformed-from system state with attention to: Pathophysiologically anchored or inappropriate emotional, psychological, spiritual, or intellectual tone or mode of the mind-body?” <MRT-S-a>, "Any pathophysiological trance state?” <MRT-S-a>, “Any adverse interpersonal or other entanglement or enmeshment that distracts from present-time consciousness?” <MRT-S-a>, “Habituation to a catabolic HPA axis stress mode?” <MRT-S-a>, “Adverse morphic field attunement to any exogenous consciousness entity that distracts from present-time consciousness?” <MRT-S-a>, “Optimize conditions of the sovereign H/M-MB in this regard for optimal therapeutic efficacy to manifest and maintain the TTS?” <MRT-D-c>,**

c) **“Any compromise of H/M-MB awareness of the physiology of short term memory (STM), the set of neuronal synaptic and microtubule processes that enable holding on-line a representation ('working memory’) of a specific set of external or internal stimuli for a brief interval in order to process that information, manipulate it, or store it for a short period of time?” <MRT-S-a>, ”STM as an activated system that keeps products of perceptual analysis and maintains their traces in an active state for on-line**

processing of various cognitive operations and socio-emotional functions?" <MRT-S-a>, "Create optimal attunement of neuronal cell intelligence to the physiology of STM for veracity, clarity, accessibility and the ongoing process of interconversion between new memory and accessed LTM as volatile STM and reconsolidation to durable not-accessed LTM?" <MRT-D-c>,

d) **"Any compromise of H/M-MB awareness of the physiology of long-term memory (LTM) and its relationship to STM?" <MRT-S-a>, "The encoding of new memory into malleable STM and consolidation of that STM into a stable LTM representation within the neuron cell synaptic and microtubule structures by proteogenic synaptic activity involving memory maintenance protein (PKMζ)?" <MRT-S-a>, "The extinction of any LTM by proteolysis when that LTM memory is accessed, converting it to STM and producing a decrease in synaptic PKMζ?" <MRT-S-a>, "The physiology of N-methyl-D-aspartate receptors (NMDARs), cannabinoid receptors, L-type voltage-gated calcium channels, and dopamine D1 receptors in memory maintenance processes?" <MRT-S-a>, "The requirement for any STM from new or accessed LTM experience to be consolidated to stable LTM via production of synaptic PKMζ and other proteins, or be lost?" <MRT-S-a>, "The malleability of LTM in its accessed unstable form as STM by the memory modifying influence of present-time experience and stimuli, which is incorporated into LTM on reconsolidation?" <MRT-S-a>, "Optimize the physiology of STM-LTM interconversion for ideal balance of the durability of retained memory and its malleability by the context of present-time experience to produce robust and useful memory?" <MRT-D-c>, "The structure of memory as a nested hierarchy of morphic fields, with memory stored in increments in cells, and disparate elements of memory residing in different cell populations?" <MRT-S-a>, "The neurological processes of selection and aggregation of incremental pieces of memory into a limited functional neural network, as appropriate to the intention driving mental access to the LTM?" <MRT-S-a>, "Optimize the morphogenic potential for bringing brain cells into association for efficient access and reconsolidation of memory?" <MRT-D-c>,**

e) **“The neurophysiology of Pavlovian conditioning by which the HM-MB learns to pair a biologically potent unconditioned stimulus (UC)** {e.g. food, sex, danger, trauma, etc.} **with a previously neutral stimulus, making it a conditioned stimulus (CS)** {conditions during the potent UC stimulus - sound, light, smells, physical sensations, etc.} **in such a way that the previously neutral CS stimulus evokes the same physiological response of the biologically potent UC stimulus?” <MRT-S-a>, “The adaptative transformation of the Pavlovian conditioned response in which the brain learns during new experiences with the CS in which it no longer is associated with the UC?” <MRT-S-a>, “The potential to introduce a beneficial "latent inhibition" of fear behavior into this memory extinction process through awareness of past (latent inhibition) or present encounters with the elements of the context in which the conditioning occurred that did not involve the UC?” <MRT-S-a>, “Optimize H/M-MB awareness of processes and conditions of memory encoding, consolidation, access, destabilization, and reconsolidation to an optimal present-time state, with attention to anachroadaptive conservation of UC-CS pairings in LTM PTSD memory of UC’s and CS’s that are no longer experienced together?” <MRT-S-a>, “Eliminate all pathophysiological stabilization of accessed LTM (now STM) to assure its reconsolidation to a contemporaneously modified LTM state congruent with present-time life experience?” <MRT-D-c>,**

f) **“Attention to any instances of pathophysiologically experienced Pavlovian conditioning of the traumatic experience and event memories in which the brain fails to learn to reconsolidate LTM trauma memories in a manner that forever uncouples and dissociates the UC’s and CS’s that are no longer experienced together to extinguish pathophysiological PTSD memory?” <MRT-S-a>, “Lifetime experiences of trauma that are now linked to LTM PTSD memories with attention to the issues of the TFS and to the experience or witnessing of war, conflict, torture, natural disaster, serious accidents, physical or sexual assault, abuse, including childhood or domestic abuse, exposure to traumatic events and conditions at work - including remote exposure, serious health problems, diseases, hospitalizations, ERs, loss of a loved one,**

financial loss, traumatic childbirth experiences, miss-attunement, childhood neglect, malnourishment, poverty?" <MRT-S-a>, "Optimize awareness, access, destabilization, and reconsolidation processes of all such PTSD LTM memories to durably uncouple and dissociate the UC and CS and to extinguish all PTSD memories?" <MRT-D-c>,

g) **"Habituation to acting out maladaptive behaviors in response to PTSD memory activation including: Intrusion symptoms: Flashbacks, nightmares, distressing and intense memories, distress or physical reactions after being exposed to reminders, i.e., "triggers"?" <MRT-S-a>, "Manifestation of dysphoria: Blaming self or others for the trauma, decreased interest in things that were once enjoyable, negative feelings about self and the world, inability to remember the trauma clearly, difficulty feeling positive, feelings of isolation, negative affect, and difficulty feeling positive?" <MRT-S-a>, "Avoidance of PTSD triggering: Avoiding external reminders of what happened, avoiding trauma-related thoughts or emotions, attempting to suppress attention to PTSD memories through the use of drugs, alcohol, or other addiction?" <MRT-S-a>, "Changes in reactivity: Aggression or irritability, hypervigilance and hyper-awareness, difficulty concentrating, difficulty sleeping, heightened startle response, engaging in destructive or risky behavior, difficulty sleeping or staying asleep, dissociation, intrusive thoughts, depersonalization, derealization, physical or verbal aggression, reckless or self-destructive behavior, persistent avoidance of stimuli, delayed expression?" <MRT-S-a>, "Optimize awareness, access, destabilization, and reconsolidation processes of all PTSD memories to eliminate all maladaptive behaviors that are triggered by PTSD memories?" <MRT-D-c>,**

h) **"Any adverse H/M-MB resonance and attunement with ancestral morphogenic fields at organizational levels of family, community, culture, and/or society that predispose to generational PTSD, potentiation to the fear memories and compromised memory maintenance physiology of others?" <MRT-S-a>, "Optimize awareness of and durably release morphogenic resonances and deep level H/M-MB generational PTSD memory through the physiological expression of memory awareness, access, destabilization, and reconsolidation to present-life congruent form?" <MRT-D-c>,**

i) **"The role of the microbiome with regard to brain inflammation that may contribute to the expression of PTSD?" <MRT-S-a>, "Any compromise of awareness of the nested hierarchy of present-time H-M/MB morphogenic attunements that aggregate into the morphogenic template now determining the microbial demographics, metabolic activity, and neuroimmune signaling influences of the microbiome of the gut and all body tissues and organs that support a locally differentiated microbiome?" <MRT-S-a>, "Awareness of all such beneficial and adverse morphogenic attunements to current and historical morphic fields at H-M/MB, familial, social, cultural, genetic, and species levels of organization?" <MRT-S-a>, "Any conditions in GI-biliary tract, respiratory tract, skin, and other mucous membranes at the junction of self and external environment in which dysbiosis related inflammation and breach of immune barriers, or other conditions of injury or disease affecting the nervous system that potentiate development and retention of PTSD fear memory physiology?" <MRT-S-a>, "Create an optimal nested hierarchy of morphogenic attunements to inform the ongoing dynamic, appropriate, and timely transformation of the present-time microbiome resulting in H-M/MB signaling, neuroimmune and metabalome morphology and physiology to restore and maintain physical, mental, emotional, immune, endocrine, and regenerative healing and wellness?" <MRT-D-c>**

j) **"Any compromise of awareness of the cellular apparatus for protein translation of any mRNA positioned upon cell ribosomes and rough endoplasmic reticulum, causing synthesis of the protein signified by that mRNA and its packaging for distribution by the Golgi complex?" <MRT-S-a>, "Potential protein synthesis from normal cell RNA, from the RNA of cancerous or otherwise diseased cells, and from viral RNA?" <MRT-S-a>, "The proteasome structure in the cytoplasm through which all translated proteins are passed and the resulting fragmentation of a small portion of each specific translated protein molecule into peptides characteristic of the "parent" protein?" <MRT-S-a>, "Host cell behavior to present each such peptide as an epitope attached to a cell membrane major histocompatibility complex protein (MHC) and constituting a**

record of all present-time host cell proteins production (human or viral)?" <MRT-S-a>, "T-cell monitoring and awareness of every body cell, and cell membrane presented host cell proteins and their significance representing normal cells, diseased cells, or viral infected cells, and T-cell coordination of an optimal immune response to viral infected, malignant, or severely diseased cells, and sparing of normal host cells?" <MRT-S-a>, "The capacity of the proteasome to fragment viral proteins into peptides representing proteins enfolded into the virus package of infected host cells and make them visible to T-cells and other immune cells?" <MRT-S-a>, "Optimize cellular mechanisms of molecular level sensory-motor physiology to present characteristic peptides to the adaptive immune system to direct an efficient response to viral infection, and to trigger apoptosis in cells whose peptide signatures indicate the cells is a threat to the body, and to direct reparative and protective behavior toward injured host cells?" <MRT-D-c>,

k) "Habituation to a mental posture that is judgmental to inner experience, produces unproductive and distressful recursive thinking, disturbance of mental focus, clarity, mood, and sleep?" <MRT-S-a>, "Create a default mental posture in which moment to moment suffering in life is minimized by staying present in the moment, not bringing unnecessary thought or self-judgement to the experience of life, the mind not displaced from the present into recollection of past traumas, or anticipation of future threats?" <MRT-D-c>,

l) "Basolateral amygdala (BLA) plasticity in the acquisition and extinction of fear memory involving distinct parallel neural paths for fear and reward memories?" <MRT-S-a>, "The critical role of BLA projections of dopaminergic neurons (DANs) to send signals to BLA memory areas to direct the extinction of fear memories?" <MRT-S-a>, "Optimize awareness, access, and reconsolidation processes of all fear memories and the efficiency of DANs to direct BLA memory areas for fear memory extinction?" <MRT-D-c>,

m) **“The role of the serotonin (5-HT) neurotransmitter system of neurons in brainstem’s median and dorsal raphe nuclei that project to key fear circuitry loci within the amygdala, hippocampus, and ventromedial prefrontal cortex (vmPFC), with the role to moderate fear responses by targeting GABAergic inhibitory neurons in those areas?” <MRT-S-a>, “The role of members of gut microbiome (Turicibacter sanguinis? – murine studies), to signal nearby intestinal cells to release serotonin, comprising 95% of body serotonin production?” <MRT-S-a>, “Optimize the activity of serotonergic neurons of the brain and gut to moderate fear responses and memory production within a physiological window?” <MRT-D-c>,**

n) **“The presence of a PTSD induced deficit in GABA levels in the mesial temporal lobe and the parieto-occipital cortex contributing to insomnia and degraded sleep and rejuvenation?” <MRT-S-a>, “Optimize temporal, and parieto-occipital cortex region GABAergic neurotransmitter physiology?” <MRT-D-c>,**

o) **“The role the catecholamine neurotransmitter system in fear memory: the noradrenaline-locus coeruleus system (NOR-LC) response to strong stimuli such as fear in which it directs amygdala processes biased for fear memory stabilization and against fear memory extinction?” <MRT-S-a>, “That access and retrieval of LTM memory necessarily makes it volatile, but in the presence of NOR-LC to BLA activity the neuronal mechanisms required to learn from the current context and modify accessed LTM are disabled and so it is unchanged and not extinguished?” <MRT-S-a>, “Optimize NOR-LC influence on memory maintenance and extinction processes to eliminate pathophysiological stabilization of fear memory?” <MRT-D-c>,**

p) **“The fear memory encoding in hippocampus cellular engram neurons, CA1 pyramidal and granule neurons and the ability for rapid repeat stimulation of these cells to predispose them toward fear memory extinction?” <MRT-S-a>, “Modulate hippocampus fear memory activity within a physiological window?” <MRT-D-c>,**

q) **“Hypothalamus production and posterior pituitary release of oxytocin, and its production in females in the corpus luteum and the placenta; in males in the testicles'**

interstitial cells of Leydig; and in both sexes in the retina, the adrenal medulla, the thymus and the pancreas?" <MRT-S-a>, "The potential for oxytocin to facilitate fear extinction and attenuate fear response?" <MRT-S-a>, Optimize oxytocin physiology to moderate fear responses and memory production within a physiological window?" <MRT-D-c>,

r) **"Cannabinoid 1 receptors (CB1) throughout the CNS and endocannabinoid NT involvement in consolidation and extinction of aversive memories and potentiation of fear memory extinction circuitry, with attention to the amygdala-hippocampal-corticostriatal (AHC) circuit responsible for coordinating fear-related behaviors, as well as storing and processing fear-related memories?" <MRT-S-a>, "Optimize endocannabinoid neurotransmitter and receptor physiology and other biochemical moderators of fear response to produce timely, efficient, and appropriate fear memory extinction?" <MRT-D-c>,**

s) **"The noradrenergic neurotransmitter system (NT), contributing to PTSD symptoms of hyperarousal, re-experiencing, panic, anxiety, tachycardia, and diaphoresis), with attention to catecholamine NTs, norepinephrine (NE), epinephrine, and dopamine?" <MRT-S-a>, "The role of norepinephrine plasma membrane transporter (NET) in creating synapse availability of NE with attention to locus coeruleus (LC) of pons brainstem, prefrontal cortex (PFC), hippocampus, amygdala, and thalamus?" <MRT-S-a>, "Any reactive increase in PFC NET driven by diminished locus coeruleus (LC) NET levels under conditions of stress and trauma and provoking greater PFC synaptic availability of NE and driving PTSD symptoms?" <MRT-S-a>, "The anxiolytic effect of neuropeptide Y (NPY), a NE release inhibitor and its presence in LC, hypothalamus, septum, and periaqueductal gray areas and role in arousal and the assignment of emotional valences to stimuli and memory?" <MRT-S-a>, "Glucocorticoid-hormone (cortisol) facilitated potentiation of NE in fear conditioning?" <MRT-S-a>, "Optimize noradrenergic NT physiology to moderate fear responses and memory production within a physiological window?" <MRT-D-c>,**

t) **“Signals from autonomic (vagus n.) or other sensory nerves that produce reflex motor signal responses, local to the stimulus or at a distance and causing pain, pathophysiological blood and lymph perfusion, or other pathophysiology, with attention to manifestation of the TFS and obstruction of the TTS?” <MRT-S-a>, “Autonomic nerve triggering of a catabolic stress mode in any organ or tissue system, with attention to vagus nerve influences?” <MRT-S- a>, “The capacity of the parasympathetic system (vagus n.) to produce an autonomic shutdown response in a tissue, organ, or system?” <MRT-S-a>, “Optimize the timely, appropriate, and integrated function of all autonomous nervous systems and the CNS, with attention to their homeostatic neuroplasticity and the efficiency of related memory functions of encoding, consolidation, accessing, destabilization, and reconsolidation of memory to correlate physiologically significant memory to present-time conditions?” <MRT-D-c>,**

u) **“Endotoxemia, the toxic influence of bacterial lipopolysaccharides, or other microbial, metabolic, or undefined toxins producing cord level stimulation of sensory ganglia or other neurological structures and resulting in pain in distant areas served by the affected neurological resources, or other influences of neurological intoxication that produce inaccurate sensing of present-time life experience, compromising an ideal motor response?” <MRT-S-a>, “Optimize cell intelligence and awareness of toxic disruption of neurological resources?” <MRT-D-c>, “Optimize toxin conjugation to glutathione and other agents of biotransformation to enhance hydrophilic properties and enhance transport to liver or other emunctory routes, and all other cellular enzymatic and oxidative detoxification mechanisms?” <MRT-D-c>,**

v) Use the PTSD Worksheet to establish metrics for key topics of brain physiology attendant to fear memory and PTSD.

w) **“Create and perpetuate the curating of all memory throughout the H/M-MB, optimizing the physiology of memory encoding, consolidation, access, destabilization, and reconsolidation with a priority to modify established LTM to the current and projected context of life and to eliminate any memory constructs exhibiting a**

pathological resistance to destabilization and reformation congruent to present-time life circumstances?" <MRT-D-c>.

3) "Shall the mind-body now: Project its awareness, attention, belief, and intention into all times and dimensions of the undivided universal field of consciousness and identify, accept, and release attunement to all events, IFs, and IFs-h (IFs that hide subject IFs from awareness) that define into existence the transformed-from system state?" <MRT-S-a>, "Or, that cause this transformation to seem dangerous, undeserved, or impossible to achieve?" <MRT-S-a>, "Create awareness, acceptance, attunement, and belief of all corrective events and TrIQs to define into existence the transformed-to system state?" <MRT-S-a>, "Create the intention to collapse the quantum potential of the field's reality quanta to manifest this transformation?" <MRT-S-a>, "Create optimal attunement and coherence to the source of creation, innate intelligence, and the consciousness of healing and accept the role of co-creator of all experienced reality, NOW?" <MRT-D-c>. Refresh this awareness and intention with each MRT pulse. The dynamic MRT end point signals that the survey is complete, awareness is optimal, and this transformation is now informationally realized.

4) Optionally: **"After fully applying the therapeutic intention of this correction, mind-body projection of the TSB metric for the TFS is $\log_{10}$1000 L- ___?" <MRT-S-a>,**

a) If the resulting projected TSB is not acceptable: **"Would it be of benefit to now reapply the therapeutic intention of this correction 1000 times in the next 10 seconds?" <MRT-D-c>.** If yes, make a correction, holding this intention and reapplying the UCS.

b) Recheck the question, **"After fully applying the therapeutic intention of this correction, mind-body projection of the TSB metric for the TFS is $\log_{10}$1000 L- ___?" <MRT-S-a>. If MRT suggests it would be of value, make the correction again. "Would it be of benefit to now reapply the therapeutic intention of this correction**

1000 times in the next 10 seconds?” <MRT-D-c>, and so on, until an acceptable level of correction has been reached.