Masood Adam Kureshi, DC, CICE

Occupational History

Riverdale Chiropractic Chiropractor/Clinal Director	**Riverdale, MD** 2019- Present
MVC Injury Consultants Owner/Clinical Director	**Silver Spring, MD** 2017-2019
Belair Rehabilitation Centers Chiropractor/ Clinical Director	**Baltimore, MD** 2013-2017
Chiro Care of Frederick Chiropractor/ Clinical Director	**Frederick, Maryland** 2008-2012
Spinal Care Centers Chiropractor/ Clinical Director	**Germantown, MD** 2006-2008
Gaithersburg Pain Relief Center Owner/ Clinical Director	**Gaithersburg, MD** 1998-2006
Yousefi Chiropractic Clinic Chiropractic Intern	**Silver Spring, MD** 1996 to 1998

Education and Licensure

Doctor of Chiropractic
Licensed in the State of Maryland, License #S01799, 1996-Present

*Certified Independent Chiropractic Examine*r (CICE), 2017-Present
American Board of Independent Medical Examiners, Huntington, WV

Life Chiropractic College, Marietta, GA
Doctor of Chiropractic Degree, 1996

National Board of Chiropractic Examiners, Part I, 1994
National Board of Chiropractic Examiners, Part II, 1995
National Board of Chiropractic Examiners, Part III, 1995
National Board of Chiropractic Examiners, Part IV, 1996
National Board of Chiropractic Examiners, Physiotherapy, 1996

Internship, Life Chiropractic College Outpatient Facility
Marietta, GA 1994-1996

University of Maryland, College Park, MD
Bachelor of Science (Microbiology), 1992

Specialized Training

Whiplash: Biomechanics, Epidemiology, and Forensic Risk Analysis
Whiplash and Brain Injury Traumatology, 2004
Spine Research Institute of San Diego, San Diego, CA

Whiplash: Medicolegal Fundamentals, Depositions, Arbitrations, Expert Testimony
Whiplash and Brain Injury Traumatology, 2017
Spine Research Institute of San Diego, San Diego, CA

Certified Spinal Ligament Injury Specialist
American Spinal Injury and Impairment Consultants, 2017

Expert Witness Testimony

- **Prince Georges County Circuit Court, August 14, 2018**
  Provided expert testimony in jury trial, utilizing and explaining DMX imaging technology as pertains to cervical spinal ligament trauma resulting from automobile crash.

- **Prince Georges County District Court, June 5, 2019**
  Provided expert testimony in district court, demonstrating DMX imaging technology and cervical spinal ligament injury resulting from low speed automobile crash.

Post Graduate Coursework

General

Patient Intake, History and Physical Examination, Determining the etiology of the patient's complaints in a traumatic or non-traumatic scenario. *Analyzing the patient's past history and review of systems along with the performance of a complete orthopedic, neurological and clinical examination to correlate both past, current and causality issues to formulate an accurate diagnosis, prognosis and treatment plan, with an emphasis on triaging both the trauma and non-trauma patients* [Texas Chiropractic College or PACE Recognized by The Federation of Chiropractic Licensing Boards],Academy of Chiropractic Post Doctoral Division,Long Island, NY, 2017

Neurodiagnostics, Imaging Protocols and Pathology of the Trauma Patient, *An in-depth understanding of the protocols in triaging and reporting the clinical findings of the trauma patient. Maintaining ethical relationships with the medical-legal community*. Texas Chiropractic College,Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2017

Diagnostics, Risk Factors, Clinical Presentation and Triaging the Trauma Patient, *An extensive understanding of the injured with clinically coordinating the history, physical findings and when to integrate neurodiagnostics. An understanding on how to utilize emergency room records in creating an accurate diagnosis and the significance of "risk factors" in spinal injury.* Texas Chiropractic College,Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2017
Crash Dynamics and Its Relationship to Causality, *An extensive understanding of the physics involved in the transference of energy from the bullet car to the target car. This includes G's of force, newtons, gravity, energy, skid marks, crumple zones, spring factors, event data recorder and the graphing of the movement of the vehicle before, during and after the crash. Determining the clinical correlation of forces*

*and bodily injury.*Texas Chiropractic College, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2017

Neurodiagnostic Testing Protocols, Physiology and Indications for the Trauma Patient, *Electromyography (EMG), Nerve Conduction Velocity (NCV), Somato Sensory Evoked Potential (SSEP), Visual Evoked Potential (VEP), Brain Stem Auditory Evoked Potential (BAER) and Visual-Electronystagmosgraphy (V-ENG) interpretation, protocols and clinical indications for the trauma patient.* Texas Chiropractic College, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2017

Documentation and Reporting for the Trauma Victim*, Understanding the necessity for accurate documentation and diagnosis utilizing the ICD-9 and the CPT to accurately describe the injury through diagnosis. Understanding and utilizing state regulations on reimbursement issues pertaining to healthcare.* Texas Chiropractic College, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2017

Documenting Clinically Correlated Bodily Injury to Causality,*Understanding the necessity for accurate documentation, diagnosis and clinical correlation to the injury when reporting injuries in the medical-legal community. Documenting the kinesiopathology, myopathology, neuropathology, and pathophysiology in both a functional and structural paradigm.* Texas Chiropractic College, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2017

Specialized Training

Cervival Spondylotic Myelopathy. *Understanding the symptoms and signs, epidemiology and pathophysiology, differential diagnosis, key diagnostic tests, and medical and surgical treatment options for treating cervical spondylotic myelopathy.* American Academy of Neurology, accredited by the Accreditation Council for Continuing Medical Education (ACCME), 2017

Spinal Pain Syndromes*, Distinctions between nociceptive and neuropathic pain syndrome are discussd, with particular emphasis on sclerotogenous, myofascial, and visceral aspects of nociceptive pain syndromes. Included is a comprehensive review of the literature of Bogduk, Barnsley and Kuslich, and the resultant scientific understanding of cervical facet joint pain vs. lumbar disc annular fiber pain that arose from their research, and the corresponding nerve fibers involved in each. Myofascial, visceral, and sclerotogenous pain diagrams are compared to neuropathic pain diagrams, with differences explained by way of primary mechanical pain vs. secondary referred pain.* DC Hours, Post-Doctoral Chiropractic Certification

Conditions of the Spinal Disc 1. *A detailed review of the functional anatomy of the intervertebral disc, inclusive of disc innervation, disc nutrition and structural composition. Disc pathology as visualized on MRI, and discussion of MRI limitations, including false positives.* DC Hours, Post-Doctoral Chiropractic Certification, 2017

Conditions of the Spinal Disc 2. *Continuation of MRI disc pathology, with discussion of various herniation types, and treatment options available. Detailed discussion of pathophysiology of normal disc aging, disc stress profiles, and the effectiveness of spinal decompression as a treatment option for degenerated discs.* DC Hours, Post-Doctoral Chiropractic Certification, 2017

Conditions of the Spinal Disc 3. *In depth review of degenerative disc disease (DDD) and its relationship to normal disc aging, as well as the multitude of risk factors associated with DDD. Gene mutations, internal disc disruptions, nerve ingrowth, and trauma as they relate to the development of DDD, and consequent discogenic pain.* DC Hours, Post-Doctoral Chiropractic Certification, 2017

Spinal Radiculopathy. *A review of the typical clinical presentations of radiculopathies, and how they are differentiated from brachial plexopathies and peripheral neuropathies. Also, the etiology of radiculopathies is reviewed, inclusive of uncinate arthrosis, disc herniation, zygapophyseal joint arthrosis, degenative disc disease, and vertebral antero or retrolisthesis. Includes a discussion on neuropathic pain syndromes vs. nociceptive pain syndromes, orthopedic testing evaluation, neurological work up and MRI finding commonly seen in radiculopathies*. DC Hours, Post-Doctoral Chiropractic Certification, 2017

Motor Vehicle Collision (MVC) Training

Undertanding Whiplash 1: *Detailing the biomechanics of low speed rear impact collisions, including discussions on the 4 distinct phases of spinal motion, general magnitudes and transfer of force, factors associated with increased risk of injury and the various types of injuries that result from these collisions. The relationship between crush damage and acceleration force, and the lack of relationship between vehicular damage and occupant injuries are also discussed*. DC Hours, Post-Doctoral Chiropractic Certification, 2017

Undertanding Whiplash 2: *An in depth analysis on the specific conditions and symptoms related to whiplash type injuries, including the etiology of neck pain and the multitude of tissue specific pain generators involved, headache, radiculopathy, thoracic outlet syndrome, myofascial pain syndrome, fibromyalgia, post-concussive syndrome, and TMJ. Treatment options for cervical facet joint injury are discussed, inclusive of medical branch facet blocks, radiofrequency neurotomy, and cervical manipulations. The causal link between whiplash trauma and mild traumatic brain injury (MTBI) is reviewed. DC Hours, Post-Doctoral Chiropractic Certification (2017)*

Orthopedic Training

Principles, Clinical Application and Triage, Integration of orthopedic testing in the clinical setting to develop a differential diagnosis. *Utilizing radiographic and advanced imaging inclusive of MRI and CAT scan findings to verify tissue pathology suspected by orthopedic testing conclusions and developing a treatment plan as sequelae.* [Texas Chiropractic College or PACE Recognized by The Federation of Chiropractic Licensing Boards], ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Buffalo, NY, 2017

Cervical Spine, Integration of cervical orthopedic testing in the clinical setting to develop a differential diagnosis. *Utilizing radiographic and advanced imaging inclusive of MRI and CAT scan findings to verify tissue pathology suspected by orthopedic testing conclusions and developing a treatment plan as sequelae.* [Texas Chiropractic College or PACE Recognized by The Federation of Chiropractic Licensing Boards], ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Buffalo, NY, 2017

Lumbar Spine, Integration of lumbar orthopedic testing in the clinical setting to develop a differential diagnosis. *Utilizing radiographic and advanced imaging inclusive of MRI and CAT scan findings to verify tissue pathology suspected by orthopedic testing conclusions and developing a treatment plan as sequelae.* [Texas Chiropractic College or PACE Recognized by The Federation of Chiropractic Licensing Boards], ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Buffalo, NY, 2017

Clinical Grand Rounds, Integration of orthopedic testing in the clinical setting utilizing both simple and complex patient scenarios. *Considering potential stroke, or vertebrobasilar insufficient patients and understanding the nuances in a clinical evaluation with orthopedic testing as a critical part of the evaluation and screening process*. [Texas Chiropractic College or PACE Recognized by The Federation of Chiropractic Licensing Boards],ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Buffalo, NY, 2017

Neurological Training

Interpretation of the EMG/NCV Report. *Presenting the essential aspects of interpretation of nerve conduction studies (motor nerve conduction velocity studies, sensory nerve studies, H-reflex, F-wave studies and needle EMG studies). Discussion of the different types of NCV normal values; comparing patient data to a normal values table or using comparative analysis. Review and correlate the NCV/EMG results based on patient's presenting signs and symptoms and NCV report findings. The components of the written EMG/NCS report and what information should be contained in each component. Identifying and defining medical necessity, as it pertains to ordering and performing nerve conducton studies.* American Academy of Clinical Electrodiagnosis (AACE), 2017

The Brachial Plexus (Second Edition). *Reviewing the purpose and providing a working knowledge of the brachial plexus in order to render a correct diagnosis when a patient presents with signs or symptoms in one upper extremity. Recognize and label the nerve roots, trunks, divisions, cords, and nerves that comprise the brachial plexus. A review of the brachial plexus anatomy and physiology to distinguish upper extremity mononeuropathies from plexopathies and radiculopathies and the use of electrodiagnostic studies as a means of confirming clinical diagnosis.* American Academy of Neurology, accredited by the Accreditation Council for Continuing Medical Education (ACCME), 2017

Radiculopathy: Patient Assessment. *Course is designed to provide the necessary tools to effectively evaluate radiculopathies, nociceptive, and neuropathic projected pain, inclusive of the various nerve fibers associated with each. The role of the uncovertebral and apophyseal joints in relation to cervical radiculopathy will be discussed. Differential diagnosis via orthopedic evaluation, neurological work up and MRI will be presented.* DC Hours, Post-Doctoral Chiropractic Certification, 2017

The Neurology of Pain. *An in depth examination of the neurological and physiological aspects of pain transmission and pain perception, including a review of various nociceptors throughout the body. Mechanisms of transduction and conduction are explained, as well as the classification of peripheral neurons and how they transmit pain signals to the higher brain centers via the spinothalamic and spinoreticular tracts. An analysis of the tonic inhibitory system and the descending inhibitory pathways that modulate a patient's perception of pain.* DC Hours, Post-Doctoral Chiropractic Certification, 2017

MRI / CT / X-Ray:

Radiology Masterclass: Trauma X-ray Interpretation (Whole Skeleton)
An in depth understanding of protocols to interpret radiographs as either normal or abnormal in the context of common skeletal and soft tissue trauma to the whole skeleton, and to determine the difference between true traumatic injuries seen on radiographs and mimics which are commonly mistaken for traumatic injuries to the whole skeleton. The Royal College of Radiologists, London (UK) 2017

Radiology Masterclass: Acute CT/Brain Interpretation
Interpretation of common abnormal appearances of CT images of the brain in the acute setting, with

emphasis on head injuries, skull fractures, cerebrovascular events, and other common acute brain pathologies. Differences between primary benign and primary malignant intracranial lesions, and secondary intracranial lesions and differentiating these malignant lesions from brain abscesses using CT contrast mediums. The Royal College of Radiologists, London, UK 2017

Fluoroscopy Safety: *Fluoroscopic fundamentals, radiation terminology, fluoroscopy health effects, documentation, minimizing dosing to patients and staff and state regulations*. Dade Moeller Training Academy, 2017

MRI of the Spine: Essentials for the Spine Specialist. *Essentials of MRI Physics (pulse sequences), MRI anatomy of the spine and normal variants, Normal and abnormal MRI of the cervical ad lumbar spine spine, tumors of the spine, MRI of the pediatric spine, correlation of MRI with other imaging modalities, Advanced techniques in spine MRI.* The North American Spine Society, accredited by the Accreditation Council for Continuing Medical Education, 2017

MRI, Bone Scan and X-Ray Protocols, Physiology and Indications for the Trauma Patient,*MRI interpretation, physiology, history and clinical indications, bone scan interpretation, physiology and clinical indications, x-ray clinical indications for the trauma patient.*Texas Chiropractic College,Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2017

MRI History and Physics, *Magnetic fields, T1 and T2 relaxations, nuclear spins, phase encoding, spin echo, T1 and T2 contrast, magnetic properties of metals and the historical perspective of the creation of NMR and MRI.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

MRI Spinal Anatomy and Protocols, *Normal anatomy of axial and sagittal views utilizing T1, T2, 3D gradient and STIR sequences of imaging. Standardized and desired protocols in views and sequencing of MRI examination to create an accurate diagnosis in MRI.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

MRI Disc Pathology and Spinal Stenosis, *MRI interpretation of bulged, herniated, protruded, extruded, sequestered and fragmented disc pathologies in etiology and neurological sequelae in relationship to the spinal cord and spinal nerve roots.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

MRI Spinal Pathology,*MRI interpretation of bone, intradural, extradural, cord and neural sleeve lesions. Tuberculosis, drop lesions, metastasis, ependymoma, schwanoma and numerous other spinal related tumors and lesions.*Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

MRI Methodology of Analysis, *MRI interpretation sequencing of the cervical, thoracic and lumbar spine inclusive of T1, T2, STIR and 3D gradient studies to ensure the accurate diagnosis of the region visualized.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

MRI Clinical Application, *The clinical application of the results of space occupying lesions. Disc and*

tumor pathologies and the clinical indications of manual and adjustive therapies in the patient with spinal nerve root and spinal cord insult as sequelae. Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

MRI Protocols Clinical Necessity, *MRI slices, views, T1, T2, STIR axial, stacking, FFE, FSE and sagittal images. Clinical indication for the utilization of MRI and pathologies of disc in both trauma and non-trauma sequellae, including bulge, herniation, protrusion, extrusion and sequestration.*Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

MRI Interpretation of Lumbar Degeneration/Bulges,*MRI slices, views, T1, T2, STIR axial, stacking, FFE, FSE and sagittal images in the interpretation of lumbar degeneration. With the co-morbidities and complications of stenosis, pseudo-protrusions, cantilevered vertebrate, Schmorl's nodes and herniations. Central canal and cauda equina compromise interpretation with management.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

MRI Interpretation of Lumbar Herniations, *MRI slices, views, T1, T2, STIR axial, stacking, FFE, FSE and sagittal images in the interpretation of lumbar herniations. With the co-morbities and complications of stenosis, pseudo-protrusions, cantilevered vertebrate, Schmorl's nodes and herniations. Morphology of lumbar disc pathologies of central and lateral herniations, protrusions, extrusions, sequestration, focal and broad based herniations are defined and illustrated. Central canal and cauda equina compromise interpretation with management.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

MRI Interpretation of Cervical Degeneration/Bulges, *MRI slices, views, T1, T2, STIR axial, stacking, FFE, FSE and sagittal images in the interpretation of cervical degeneration. With the co-morbidities and complications of stenosis, pseudo-protrusions, cantilevered vertebrate, Schmorl's nodes and herniations. Spinal cord and canal compromise interpretation with management.*Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

MRI Interpretation of Cervical Herniations, *MRI slices, views, T1, T2, STIR Axial, FFE, FSE and sagittal images in the interpretation of lumbar herniations. With the co-morbidities and complications of stenosis, pseudo-protrusions, cantilevered vertebrate, Schmorl's nodes and herniations. morphology of lumbar disc pathologies of central and lateral herniations, protrusions, extrusions, sequestration, focal and broad based herniations are defined and illustrated. Spinal cord and canal compromise interpretation with management.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

MRI Interpretation of Degenerative Spine and Disc Disease with Overlapping Traumatic Insult to Both Spine and Disc,*MRI slices,views, T1, T2, STIR Axial, FFE, FSE and sagittal images in the interpretation of degenerative spondylolesthesis, spinal canal stenosis, Modic type 3 changes, central herniations, extrusions, compressions, nerve root compressions, advanced spurring and thecal sac involvement from an orthopedic, emergency room, chiropractic, neurological, neurosurgical, physical medicine perspective.*Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences,Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

Magnetic Resonance Imaging 1. *An understanding of the nuclear physics necessary to interpret MRI studies, and an understanding of the basic principles involved in producing MRI images. The basic fundamental principles shared by all MRI scanners, inclusive of tesla strength, gradient coils, image artifacts, radiofrequency, and an introduction to the concepts of spin and precession as they apply to producing MRI images are discussed.* DC Hours, Post-Doctoral Chiropractic Certification, 2017

Magnetic Resonance Imaging 2. *The importance of multiplanar images of MRI, the shades of gray and the differences between T1 and T2 weighted images and other sequence protocols, with an emphasis on the special MRI studies that have been created to help identify pathologies, inclusive of compression fractures. Explanation of techniques involving fat suppression, contrast enhancing and functional MRI studies with regards to diagnosing traumatic injuries.* DC Hours, Post-Doctoral Chiropractic Certification, 2017

Magnetic Resonance Imaging 3. *The Contraindications to MRI, evaluating an MRI report, the MRI appearance of degenerative joint and disc disease, ligamentum flavum hypertrophy, disc bulges and herniations, annular tears and post-disc surgical considerations*. DC Hours, Post-Doctoral Chiropractic Certification, 2017

Insurance Documentation

Medical-Legal-Insurance Documentation. *Accurate and compliant documentation of history and clinical findings inclusive of functional losses, loss of activities of daily living, duties under duress and permanent loss of enjoyment of life. Prognosing static vs. stable care, gaps in care both in the onset and in the middle of passive care with a focus on detailed diagnosing. The integration of chiropractic academia, the court system and the insurance reimburser's requirements for complete documentation.* Texas Chiropractic College, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2017

Impairment Ratings. *The understanding and utilization of the protocols and parameters of the AMA Guide to the Evaluation of Permanent Impairment 6th Edition. Spine, neurological sequelae, migraine, sexual dysfunction, sleep and arousal disorders, station and gait disorders and consciousness are detailed for impairment rating. Herniated discs, radiculopathy, fracture,dislocationa and functional loss are also detailed in relation to impairment ratings. Texas Chiropractic College or PACE Recognized by The Federation of Chiropractic Licensing Boards'], ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017*

Insurance Coding**.** *Basic vital coding information for compliant insurance billing. This course will focus on coding and documentation of Evaluation/Management, Chiropractic Manipulative Technique, Modalities, and Therapeutic procedures*. DC Hours, Post-Doctoral Chiropractic Certification, 2017

Medicolegal Documentation**.** *Coding principles of insurance documentation to establish medical necessity for medical treatments provided to patients. Concept of post payment audits, and how hey can be mitigated.* DC Hours, Post-Doctoral Chiropractic Certification, 2017

Healthcare Compliance. *Introduction to the concept of Healthcare Compliance, including the seven basic elements of a compliance program. A detailed summary of the HIPAA Privacy Rule formulating all the components to help you formulate your own HIPAA compliance program for your office.* DC Hours, Post-Doctoral Chiropractic Certification, 2017

Brain Injury

Mild Traumatic Brain Injury/Traumatic Brain Injury/Concussion, *Differentially diagnosing mild traumatic brain injury vs. traumatic brain injury and the clinical and imaging protocols required to conclude an accurate diagnosis for head trauma.* Texas Chiropractic College, Academy of Chiropractic Post Doctoral Division, Long Island, NY, 2017

Migraine Headaches**.** *An in depth review of the the basic principles and etiology of Migraine Headaches, with a focus on the evaluation and treatment of migraine sufferers. The concepts of genetic predisposition, brainstem dysfunction, neurochemical reactions, and central sensitization will be discussed. Neurofeedback as a promising option of migraine pain modulation will be introduced.* DC Hours, Post-Doctoral Chiropractic Certification, 2017

Cervicogenic headaches. *This course reviews the clinical presentation of cervicogenic headache, proposed diagnostic criteria, pathophysiologic mechanisms, and methods of diagnostic evaluation. Guidelines for developing a successful multidisciplinary pain management program using medication, physical therapy, osteopathic manipulative treatment, other non pharmacologic modes of treatment, and anesthetic interventions are also presented.* DC Hours, Post-Doctoral Chiropractic Certification, 2017

Spinal Trauma Pathology

Spinal Trauma Pathology, Triage and Connective Tissue Injuries and Wound Repair, *Triaging the injured and differentially diagnosing both the primary and secondary complaints. Connective tissue injuries and wound repair morphology focusing on the aberrant tissue replacement and permanency prognosis potential.*Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences,Academy of Chiropractic Post-Doctoral Division, Buffalo, New York, 2017

Spinal Trauma Pathology, Ligament Anatomy and Injury Research and Spinal Kinematics,*Spinal ligamentous anatomy and research focusing on wound repair, future negative sequelae of abnormal tissue replacement and the resultant aberrant kinematics and spinal biomechanics of the spine.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, New York, 2017

Spinal Trauma Pathology, Spinal Biomechanics, Central Nervous System and Spinal Disc Nomenclature, *The application of spinal biomechanical engineering models in trauma and the negative sequelae it has on the central nervous system inclusive of the lateral horn, periaqueductal grey matter, thalamus and cortices involvement.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, New York, 2017

Spinal Trauma Pathology, Biomechanics of Traumatic Disc Bulge and Age Dating Herniated Disc Pathology, *The biomechanics of traumatic disc bulges as sequelae from trauma and the comorbidity of ligamentous pathology. Age-dating spinal disc pathology in accordance with Wolff 's Law.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, New York, 2017

Spinal Trauma Pathology, Clinical Grand Rounds, *The review of case histories of mechanical spine pathology and biomechanical failures inclusive of case histories, clinical findings and x-ray and advanced imaging studies. Assessing comorbidities in the triage and prognosis of the injured.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division,

Buffalo, New York, 2017

Spinal Trauma Pathology, Research Perspectives, *The review of current literature standards in spinal trauma pathology and documentation review of biomechanical failure, ligamentous failure and age-dating disc pathology.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, New York, 2017

Spinal Biomechanical Engineering

Spinal Biomechanical Engineering: *Cartesian System,The Cartesian Coordinate System from the history to the application in the human body. Explanation of the x, y and z axes in both translation and rotations (thetas) and how they are applicable to human biomechanics*.[Texas Chiropractic College or PACE Recognized by The Federation of Chiropractic Licensing Boards], ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

Spinal Biomechanical Engineering: *Cervical Pathobiomechanics, Spinal biomechanical engineering of the cervical and upper thoracic spine. This includes the normal and pathobiomechanical movement of both the anterior and posterior motor units and normal function and relationship of the intrinsic musculature to those motor units. Nomenclature in reporting normal and pathobiomechanical findings of the spine.* [Texas Chiropractic College or PACE Recognized by The Federation of Chiropractic Licensing Boards], ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

Spinal Biomechanical Engineering: *Lumbar Pathobiomechanics, Spinal biomechanical engineering of the lumbar spine. This includes the normal and pathobiomechanical movement of both the anterior and posterior motor units and normal function and relationship of the intrinsic musculature to those motor units. Nomenclature in reporting normal and pathobiomechanical findings of the spine*. [Texas Chiropractic Collegeor PACE Recognized by The Federation of Chiropractic Licensing Boards], ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

Spinal Biomechanics in Trauma: *Utilizing whiplash associated disorders in various vectors of impact and whiplash mechanisms in determining pathobiomechanics. To clinically correlate annular tears, disc herniations, fractures, ligament pathology and spinal segmental instability as sequellae to pathobiomechanics from trauma. The utilization of digital motion x-ray in diagnoising normal versus abnormal facet motion along with case studies to understand the clinical application*. [Texas Chiropractic College or PACE Recognized by The Federation of Chiropractic Licensing Boards], ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

Spinal Biomechanical Engineering & Organizational Analysis: *Integrating spinal biomechanics and pathobiomechanics through digitized analysis.The comparison of organized versus disorganized compensation with regional and global compensation. Correlation of the vestibular, occular and proprioceptive neurological integration in the righting reflex as evidenced in imaging. Digital and numerical algorithm in analyzing a spine.* [Texas Chiropractic College or PACE Recognized by The Federation of Chiropractic Licensing Boards], ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

Spinal Biomechanical Engineering: *Cervical Digital Analysis, Digitizing and analyzing the cervical spine in neutral, flexion and extension views to diagnose pathobiomechanics. This includes alteration of motion segment integrity (AOMSI) in both angular and translational movement. Ligament instability/failure/pathology are identified all using numerical values and models. Review of case studies to analyze pathobiomechanics using a computerized/numerical algorithm.* [Texas Chiropractic College or PACE Recognized by The Federation of Chiropractic Licensing Boards], ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

Spinal Biomechanical Engineering: *Lumbar Digital Analysis, Digitalizing and analyzing the lumbar spine images to diagnose pathobiomechanics. This includes anterior and posterior vertebral body elements in rotatioal analysis with neutral, left and right lateral bending in conjunction with gate analysis. Ligament instability/failure/pathology is identified all using numerical values and models. Review of case studies for analysis of pathobiomechanics using a computerized/numerical algorithm along with corrective guidelines.* [Texas Chiropractic College or PACE Recognized by The Federation of Chiropractic Licensing Boards], ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

Spinal Biomechanical Engineering: *Full Spine Digital Analysis, Digitalizing and analyzing the full spine images to diagnose pathobiomechanics as sequellae to trauma in relation to ligamentous failure and disc and vertebral pathology as sequellae. This includes anterior and posterior vertebral body elements in rotatioal analysis with neutral, left and right lateral bending in conjunction with gate analysis. Ligament instability/failure/pathology is identified all using numerical values and models. Review of case studies for analysis of pathobiomechanics using a computerized/numerical algorithm along with corrective guidelines.* [Texas Chiropractic College or PACE Recognized by The Federation of Chiropractic Licensing Boards], ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

Accident Reconstruction:

Accident Reconstruction: Terms, Concepts and Definitions. *The forces in physics that prevail in accidents to cause bodily injury. Quantifying the force coefficients of vehicle mass and force vectors that can be translated to the occupant and subsequently cause serious injury.* [Texas Chiropractic College or PACE Recognized by The Federation of Chiropractic Licensing Boards], Academy of Chiropractic Post Doctoral Division, Long Island, NY, 2017

Accident Reconstruction: *Causality, Bodily Injury, Negative Acceleration Forces, Crumple Zones and Critical Documentation, Factors that cause negative acceleration to zero and the subsequent forces created for the vehicle that get translated to the occupant. Understanding critical documentation of hospitals, ambulance reports, doctors and the legal profession in reconstructing an accident*. [Texas Chiropractic College or PACE Recognized by The Federation of Chiropractic Licensing Boards}, Academy of Chiropractic Post Doctoral Division, Long Island, NY, 2017

Accident Reconstruction: *Skid Marks, Time, Distance, Velocity, Speed Formulas and Road Surfaces, The mathematical calculations necessary utilizing time, distance, speed, coefficients of friction and*

acceleration in reconstructing an accident. The application of the critical documentation acquired from an accident site. [Texas Chiropractic College or PACE Recognized by The Federation of Chiropractic Licensing Boards], Academy of Chiropractic Post Doctoral Division, Long Island, NY, 2017

Accident Reconstruction: *Research, Causality and Bodily Injury, Delta V issues correlated to injury and mortality, side impact crashes and severity of injuries, event data recorder reports correlated to injury, frontal impact kinematics, crash injury metrics with many variables and inquiries related to head restraints*.[Texas Chiropractic College or PACE Recognized by The Federation of Chiropractic Licensing Boards], Academy of Chiropractic Post Doctoral Division, Long Island, NY, 2017