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#### **OCCUPATIONAL HISTORY**

Clinic Director, Chiropractor, Northern Utah Chiropractic, South Ogden, UT, September, 2012 - present

#### EDUCATION AND LICENSURE

Doctor of Chiropractic, Licensed in the State of Utah, License #8388721-1202, 2012- present

Doctorate of Chiropractic, University of Western States, Portland, OR, 2012.

Preceptorship, Clayton Chiropractic, Ogden, UT, 2012

Preceptorship, Core Elements Chiropractic, Portland, OR, 2012

National Board of Chiropractic Examiners, Part I, 2010

National Board of Chiropractic Examiners, Part II, 2010

National Board of Chiropractic Examiners, Part III, 2011

National Board of Chiropractic Examiners, Part IV, 2012

National Board of Chiropractic Examiners, Acupuncture, 2017

American Board of Independent Medical Examiners, 6th edition 2019

Bachelor of Science in Human Anatomy, University of Western States, Portland, OR, 2011

Bachelor of Arts in Communications, Weber State University, Ogden, UT, 2004

#### POST DOCTORATE EDUCATION AND CERTIFICATIONS

ABIME Certification course 6<sup>th</sup> edition case studies, *Review of AMA guides and hands on case studies to help with accurate impairment ratings*. American College of Independent Medical Examiners, Las Vegas 2019.

ABIME Certification course 6<sup>th</sup> edition, *Knowledge and content related to the AMA guides, new developments, differentiate symptoms, pathology, impairments, function and disability, review of fundamentals of quality disability evaluations, relate clinical data to case issues and discuss skills needed to perform exams, Perform AMA impairment ratings, Explore the use of AMA guides, implement the use of the AMA guides into practice.* American College of Independent Medical Examiners, Las Vegas 2019.

Evaluation and Management, An overview of the evaluation and management process inclusive of utilizing electronic medical records to conclude evidenced-based conclusions with the utilization of macros. The importance of adhering to an academic standard and considering comorbidities. Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2019

Evaluation and Management, Concluding a chief complaint, history and what needs to be considered in a physical examination. This covers in dept the required elements for chief complain, history of present illness, review of systems, and past, family, and/or social history. This module also covers the following components of a physical examination: observation, palpation, percussion, and auscultation. Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2019

Evaluation and Management, Coding and Spinal Examination: Detailing 99202-99205 and 99212-99215 inclusive of required elements for compliant billing. It reviews the elements for an extensive review of systems, cervical and lumbar anatomy and basic testing. The course also covers the basics of vertebra-basilar circulation orthopedic assessment. Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2019

Evaluation and Management, *Neurological Evaluation: Reviewing complete motor and sensory evaluation inclusive of reflex arcs with an explanation of Wexler Scales in both the upper and lower extremities. The course breaks down testing for upper and lower motor neuron lesions along with upper and lower extremity motor and sensory testing examinations.* Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2019

Evaluation and Management, Documenting Visit Encounters: Forensically detailing the S.O.A.P. note process for visit encounters and discussing the necessity for clinically correlating symptoms, clinical findings and diagnosis with the area(s) treated. It also details how to modify treatment plans, diagnosis, document collaborative care and introduce test findings between evaluations. Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2019 Evaluation and Management, *Case Management and Treatment Orders: This module discusses how to document a clinically determined treatment plan inclusive of both manual and adjunctive therapies. It discusses how to document both short-term and long-term goals as well as referring out for collaborative care and/or diagnostic testing. It also includes how to prognose your patient and determine when MMI (Maximum Medical Improvement) has been attained.* Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2019

Trends in Spinal Treatment, Migration of spinal care for mechanical spine issues from hospitals and medical specialists to trauma qualified chiropractors based upon published outcomes. Utilizing imaging studies in spinal biomechanics, pain models and clinical outcomes to determine a conclusive diagnosis, prognosis and treatment plan for triaging in a collaborative environment. Cleveland University Kansas City, Chiropractic and Health Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2019

Neurology of Spinal Biomechanics, Understanding the normal of spinal biomechanics and the neurotransmitters required for homeostasis. The interconnected role of Pacinian Corpuscles, Ruffini Corpuscles, Golgi Organ Receptors, Nociceptors, Proprioreceptors and Mechancoreceptors in maintaining sagittal and axial alignment in the presence of mechanical pathology. Cleveland University Kansas City, Chiropractic and Health Sciences, Academy of Chiropractic Post-Doctoral Division, Loing Island, NY, 2019

MRI Age-Dating of Herniated Discs, *The literature, academic and clinical standards to age-date herniated discs. The clinical correlation the pain patters with advanced imaging finings of bone edema, spurs based upon the Piezoelectric effect fo remodeling, high signal on T2 weighted images, Vacuum Discs and disc heights in determining the time frames of the etiology of the spinal disc pathology.* Cleveland University Kansas City, Chiropractic and Health Sciences, Academy of Chiropractic Post-Doctoral Division, Loing Island, NY, 2019

Creating Ethical Collaborative and Medical-Legal Relationships, Understanding the timely triage necessities based upon clinical and imaging outcomes and the documentation required for collaborative physicians to continue care. Ensuring that the documentation is complete, reflective of services rendered and clear for third party consideration in an admissible format to considered in a medical-legal environment. Cleveland University Kansas City, Chiropractic and Health Sciences, Academy of Chiropractic Post-Doctoral Division, Loing Island, NY, 2019

Central Innervation of Spinal Biomecinacal Engineering, Understanding the lateral and ventral horn's innovations of Pacinian Corpuscles, Ruffini Corpuscles, Golgi Organ Receptors, Nociceptors, Proprioreceptors and Mechancoreceptors and the pathways through the spinal thalamic tracts through the periaqueductal region, the Thalamus into the Occipital, pre-frontal, sensory and motor cortexes and the efferently back through the Thalamus to disparate regions in creating spinal homeostasis, Pacinian Corpuscles, Ruffini Corpuscles, Golgi Organ Receptors, Nociceptors, Proprioreceptors and Mechancoreceptors. Cleveland University Kansas City, Chiropractic and Health Sciences, Academy of Chiropractic Post-Doctoral Division, Loing Island, NY, 2019 Identifying Spinal Pathology of MRI, Utilizing T1, T2, STIR and Gradient studies in determining myelomalacia, intra and extra-dural tumors and systemic disease patterns affecting the spinal cord. When to use contrast post-operatively in identifying discal structures vs. adhesions on postoperative advanced imaging. MRI Interpretation of herniated, circumferential bulges, focal bulges, protruded, extruded, comminuted, sequestered and fragmented discs. When to consider a neurosurgical consultation based upon the correlation of imaging and clinical findings. Cleveland University Kansas City, Chiropractic and Health Sciences, Academy of Chiropractic Post-Doctoral Division, Loing Island, NY, 2019

Forensic Documentation-Report Writing, Report writing in a medical-legal case inclusive of causality, bodily injury, persistent functional loss and restrictive sequela from trauma. Demonstratively documenting bodily injury utilizing models, graphs and patient image of x-ray and advanced imaging. Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2019

Forensic Documentation- Demonstrative Documentation, Demonstratively reporting spinal biomechanical failure and spinal compensation. How in a medical-legal environment to ethically report pre-existing injuries vs causally related current injuries and what is permissible in a legal proceeding. Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2019

Forensic Documentation- Reporting Direct Opinions, Causality, bodily injury and persistent functional losses documented and reported in a medical-legal environment as your direct opinion. Avoiding hearsay issues to ensure ethical relationships. Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2019

Forensic Documentation- Initial, Final and Collaborative Reporting, Preparing demonstrative documentation in a medical-legal case ensuring that you are familiar with all other treating doctor's reports. Correlating your initial and evaluation and management (E&M) report and your follow-up E&M reports with the narrative upon maximum medical improvement documenting continuum of care. Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2019

Forensic Documentation- Qualifications and Preparation of Documentation, How to prepare your documentation for courtroom testimony and ensuring your qualifications are documented properly on an admissible, professional curriculum vitae. How to include indexed peer-reviewed literature in medical-legal documentation, Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2019

Forensic Documentation- Reporting Patient History and Credentials, Preparing patient history in a medical-legal case based upon your initial intake forms and understanding the work, social, academic, household and social activities of your patient. Understanding and explaining your doctoral and post-doctoral credentials in the courtroom. Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2019 Forensic Documentation- *Reporting Chiropractic Care and Injured Anatomy*, *Preparing demonstrative documentation in a medical-legal case to report the bodily injuries of your patients*, *inclusive of loss of function and permanent tissue pathology*. Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2019

Forensic Documentation- Reporting Temporary vs. Permanent Issues, Preparing documentation in a medical-legal case ensuring that you can communicate permanent vs. temporary functional losses and permanent vs. temporary tissue pathology. How to maintain and explain ethical relationships in medical-legal cases, Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2019

Forensic Documentation- *Reporting Bodily Injury, How to report bodily injury and functional losses as supported by your credentials in a medical-legal case. Clinically correlating causality and permanent tissue pathology as sequela to trauma,* Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2019

Collision Reconstruction & Biomechanical Engineering - Part 16, Analyzing a sample accident (case 3) utilizing all the vehicle, road surface combining standardized calculation variables in reconstructing an accident and the resultant energy considered for connective tissue pathology and resultant aberrant spinal biomechanics Academy of Chiropractic Post-Doctoral Division, Texas Chiropractic College, Long Island NY, 2017

Collision Reconstruction & Biomechanical Engineering - Part 15, Analyzing a sample accident (case 2) utilizing all the vehicle, road surface combining standardized calculation variables in reconstructing an accident and the resultant energy considered for connective tissue pathology and resultant aberrant spinal biomechanics Academy of Chiropractic Post-Doctoral Division, Texas Chiropractic College, Long Island NY, 2017

Collision Reconstruction & Biomechanical Engineering - Part 14, Analyzing a sample accident (case 1) utilizing all the vehicle, road surface combining standardized calculation variables in reconstructing an accident and the resultant energy considered for connective tissue pathology and resultant aberrant spinal biomechanics Academy of Chiropractic Post-Doctoral Division, Texas Chiropractic College, Long Island NY, 2017

Collision Reconstruction & Biomechanical Engineering - Part 13, *Mathematical worksheet* reviewing kinetic and work energy, momentum, acceleration and G-forces in numerically quantifying a collision, the energy created to deform an automobile and the transference of forces creating connective tissue pathology and altered spinal biomechanics, Academy of Chiropractic Post-Doctoral Division, Texas Chiropractic College, Long Island NY, 2017

Collision Reconstruction & Biomechanical Engineering - Part 12, Energy and momentum coefficients and data utilized as determinants and error ranges in calculations. Considering the stiffness of the vehicle, air bag function and formulation of timing in it's release point and injury potential to facial and spinal structures, Academy of Chiropractic Post-Doctoral Division, Texas Chiropractic College, Long Island NY, 2017

Collision Reconstruction & Biomechanical Engineering - Part 11, *The osseous and ligamentous* structures that are subject to pathology in bodily injury. The pathological reaction of connective tissue when it exceeds its paraphysiological limits and the bio-neuro-mechanical changes the connective tissue undergoes as sequella to trauma, Academy of Chiropractic Post-Doctoral Division, Texas Chiropractic College, Long Island NY, 2017

Collision Reconstruction & Biomechanical Engineering - Part 10, *Coefficients of acceleration, negative acceleration and G-forces in collisions that contribute to vehicular and bodily injuries. Analyzing time, speed and weight of bullet and target automobiles to reconstruct the energy of a collision and injury potential,* Academy of Chiropractic Post-Doctoral Division, Texas Chiropractic College, Long Island NY, 2017

Collision Reconstruction & Biomechanical Engineering - Part 9, *Coefficients of momentum and calculating plastic vs. elastic deformation. Direction of forces as mathematical determinants of collision and resultant bodily injury forces*, Academy of Chiropractic Post-Doctoral Division, Texas Chiropractic College, Long Island NY, 2017

Collision Reconstruction & Biomechanical Engineering - Part 8, *Reconstructing and calculating speed and velocity as injury and damage factors based upon yaw marks considering coefficients of friction based upon various road surfaces*, Academy of Chiropractic Post-Doctoral Division, Texas Chiropractic College, Long Island NY, 2017

Collision Reconstruction & Biomechanical Engineering - Part 7, *Reconstructing and calculating minimal speed and velocity as injury and damage factors based upon skid marks considering coefficients of friction based upon various road surfaces*, Academy of Chiropractic Post-Doctoral Division, Texas Chiropractic College, Long Island NY, 2017

Collision Reconstruction & Biomechanical Engineering - Part 6, *Newton's laws of inertia and the determinant calculations required based upon the action of the vehicle and how spinal biomechanics are effected. Analyzing the vehicle and accident site to reconstruct the actions of the car to create a model,* Academy of Chiropractic Post-Doctoral Division, Texas Chiropractic College, Long Island NY, 2017

Collision Reconstruction & Biomechanical Engineering - Part 5, *When correlating crash to injury, inspecting the vehicle for evidence of damage to verify causality and extent of malformation of the vehicle beyond that of the outer shell of the vehicle,* Academy of Chiropractic Post-Doctoral Division, Texas Chiropractic College, Long Island NY, 2017

Collision Reconstruction & Biomechanical Engineering - Part 4, An analysis of vehicle parts and construction design that contribute to the energy translated to the human body and spine inclusive of seatbelts, airbags, bumpers, event data recorders, tires, axles and auto frames, Academy of Chiropractic Post-Doctoral Division, Texas Chiropractic College, Long Island NY, 2017

Collision Reconstruction & Biomechanical Engineering - Part 3, *Calculation worksheets in the mathematical models required to analyze a collision and create coefficients of forces transferred in a collision that effect the automobile and the occupant*, Academy of Chiropractic Post-Doctoral Division, Texas Chiropractic College, Long Island NY, 2017

Collision Reconstruction & Biomechanical Engineering - Part 2, Understanding the mathematical models required to analyze a collision and create coefficients of forces transferred in a collision that effect the automobile and the occupant, Academy of Chiropractic Post-Doctoral Division, Texas Chiropractic College, Long Island NY, 2017

Collision Reconstruction & Biomechanical Engineering - Part 1, Analyzing the integration of collision reconstruction and spinal biomechanics utilizing a mathematical model. Understanding the model and transference of energy from the bullet car to the target car to the occupant to aberrant spinal biomechanics, Academy of Chiropractic Post-Doctoral Division, Texas Chiropractic College, Long Island NY, 2017

Advanced Acupuncture Certification Course Module 2. *Diagnosing patters of disharmony in the Large Intestine, Focus on using Chi, Blood and Fluids to diagnose, treatment principles: treating the cause vs. symptoms, tonify or sedate, treatment protocols for large intestine.* University of Western States. Ogden, UT 2019

Spinal Biomechanical Engineering Analysis, Understanding spinal motor units as it relates to the artesian system and normal vs. pathological movement. *Analyzing normal coupling functions of the spine in relations to gait and pelvic biomechanical function and determining stress units and standards of deviation of segmental dysfunction. Interpreting mensuration lines and block analysis beyond standards of deviation in spinal motor dysfunction about connective tissue failure.* Cleveland University Kansas City, Chiropractic and Health Sciences, New York State Department of Education, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2018

Spinal Biomechanical Engineering Pathology and Clinical Application, Integrating pathological function based upon the Cartesian system and digital mensuration in developing treatment plans with diagnosed connective tissue failures. *Diagnosing corrective vs. clinical management scenarios when considering maximum medical improvement in both the chronic and acute, insidious and traumatically induced patient*. Cleveland University Kansas City, Chiropractic and Health Sciences, New York State Department of Education, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2018

Connective Tissue Pathology, Spinal Biomechanics as Sequella to Trauma, MRI Spine Interpretation, Ordering Protocols & Triaging the Injure, *The latest research on the 6 ways to age-date disc herniations and bulges from trauma inclusive of disc pathology nomenclature. MRI ordering protocols, inclusive of Dixon format and fat-suppressed images. The neurology and pathology of connective tissue and the sequella of trauma at the biomechanical level leading to bio-neuro-mechanical failure. Contemporary u201cevidenced-based building blocksu201d for triaging and in a collaborative environment.* Cleveland University Kansas City, Chiropractic and Health Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island NY, 2018 Spinal Biomechanical Engineering Digitizing, *integrating automated mensuration into creating treatment plans and determining maximum medical improvement. A literature-based study of normal vs. abnormal motor until function. Determining ligamentous laxity, alteration of motion segment integrity and pathological stress units and whole person impairments based upon the literature and academic standards*, Cleveland University Kansas City, Chiropractic and Health Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island NY, 2018

Science of the Chiropractic Spinal Adjustment and Vertebral Subluxation, *The literature-based definitions of both the mechanisms the chiropractic adjustment and how it affects the central nervous system in pain pathways and systemic issues that is the arbiter for normal vs. abnormal function. The u201cphysiological mechanismsu201d of how the chiropractic spinal adjustment affects the peripheral and central nervous systems. Subluxation degeneration/Wolffu2019s Law will be detailed from a literature perspective combined with the mechanism of subluxation (bio-neuro-mechanical lesion). A literature perspective why u201clong-termu201d chiropractic care is clinically indicated as usual and customary to effectuate demonstrable biomechanical changes in the spine. An evidenced-based perspective of why physical therapy is a poor choice for spine as a 1<sup>st</sup> referral option for any provider inclusive of the literature. Cleveland University Kansas City, Chiropractic and Health Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island NY, 2018* 

Documentation, Collaboration, and Primary Spine Care, An academic basis for documentation that is usual and customary across professions in collaborative care. Maintaining ethical medical-legal relationships based upon Voir Dire and Duabert standards with ensuring a u201c4-cornersu201d inclusive report. Ensuring Primary Care Status based upon an academic standards. Cleveland University Kansas City, Chiropractic and Health Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island NY, 2018

Neuroradiology Mini-Fellowship, MRI Spine Interpretation, *Robert Peyster MD*, *Neuroradiologist, Professor of Radiology and Neurology, Chief Division of Neuroradiology, State University of New York at Stony Brook, School of Medicine*, PACE Recognized by The Federation of Chiropractic Licensing Boards, Stony Brook NY, 2018

Evidence Based Spine Care: *Epidemiology of spine care, the opioid epidemic and spinal manipulation for pain management. Functional neuroanatomy and neurochemistry of pain perception, including descending modulation of pain in the central nervous system. Review of specific research outlining spinal manipulations influence on the central nervous system in the spine pain patient. Clinical assessment and interprofessional communications relating to the diagnosis and management of the mechanical spine pain patient.* Academy of Chiropractic, Academy of Chiropractic, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Salt Lake City, Utah, 2017 Evidence Based Spine Care: Spinal biomechanics and response to trauma. Detailed review of spinal instability, mechanical spine trauma and global spinal biomechanical balance. The influence of spinal sagittal curvature, pelvic incidence, sacral slope and pelvic tilt on conservative and surgical care outcomes. Clinical correlation with radiographic and advanced imaging findings specific to the spine pain patient. Academy of Chiropractic, Academy of Chiropractic, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Salt Lake City, Utah, 2017

Evidence Based Spine Care: Coordination of care and clinical documentation associated with interprofessional communication. Focus on the safety of chiropractic management of the spine pain patient and review of research related to specific phases of care, acute intervention, corrective care and health maintenance care were reviewed. Documentation and workflows related to an interprofessional team approach focusing on compliance and delivery in the modern practice environment. Academy of Chiropractic, Academy of Chiropractic, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Salt Lake City, Utah, 2017

Orthopedic Testing: 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, 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

Orthopedic Testing: Clinical Grand Rounds, how to integrate orthopedic testing in the clinical setting utilizing both simple and complex patient scenarios. It includes 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. How to integrate orthopedic testing in the clinical setting utilizing both simple and complex patient scenarios. It includes potential stroke, or vertebrobasilar insufficient patients and understanding the nuances in a clinical setting in the clinical setting utilizing both simple and complex patient scenarios. It includes 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, 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

Orthopedic Testing: 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, 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

Orthopedic Testing: 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, 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

Orthopedic Testing: *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, 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 Evaluation and Protocols for Identifying Stroke Risk, *The neurological history and examination for identifying stroke risks with a focus on supra and infratentorial regions, upper and lower motor lesions, cranial nerve signs, spinal cord pathology, motor and sensory pathology and gait abnormalities. Examining genetic and family histories along with dissection risk factors. Stroke orthopedic testing and clinical guidelines pertaining to triage for the primary care provider.* 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

Stroke Principles of Treatment an Overview for the Primary Care Provider, Stroke type and treatments performed by vascular specialists. *The goals of treatment with the physiology of the infarct and penumbra zones and the role of immediate triage in the primary care setting. Detailing the complications of stroke and future care in the chiropractic, primary care or manual medicine clinical setting.* 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

Stroke Anatomy and Physiology: *Stroke Types and Blood Flow, Various types of stroke identifying ischemia, hypoperfusion, infarct and penumbra zones and emboli. Cardiac etiologies and clinical features as precursor to stroke with associated paradoxical emboli and thrombotic etiologies. Historical and co-morbidities that have etiology instroke inclusive of diabetes, coagulopathy, acquired and hereditary deficiencies.* 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 Stroke Anatomy and Physiology: *Brain Vascular Anatomy, The anatomy and physiology of the brain and how blood perfusion effects brain function. A detailed analysis of the blood supply to the brain and the physiology of ischemia.* 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

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, 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, 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, Academy of Chiropractic Post Doctoral Division, Long Island, NY, 2017

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, 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

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

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

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

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

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

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

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 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, *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, 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, *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, *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

**100 Hour Acupuncture Course.,** Chinese medicine history, Yin-Yang theory, 5 elements, Pulse and tongue diagnosis, Zang Fu, meridian points, extra points, Traditional Chinese Medicine Theory of disease, Auricular therapy, East West seminars in cooperation with University of Western States, 2016

**Medical Errors Slated as Third Leading Cause of Death in U.S.**, *Medical errors leading to mortality on the United States and possible solutions to reverse the trend of iatrogenic deaths,* Accreditation Council on Continuing Medical Education (ACCME) in cooperation with Medscape, 2016

**Interprofessional Communication: How can it improve health care**, best practices in Interprofessional Communication. Are there proven best practices in interprofessional collaboration to enhance and improve patient care., Accreditation Council on Continuing Medical Education in cooperation with Medscape, 2016 **Ethics of Interprofessional Collaboration**, *Act with honesty and integrity in relationships.* Manage ethical dilemmas specific to interprofessional collaboration. Demonstrate high level of ethical standards with team-based care. Respect the privacy and dignity of patients, Accreditation Council on Continuing Medical Education in cooperation with Medscape, 2016

An Integrative Approach to Chronic Low Back Pain, Effectiveness of complementary therapies for acute and chronic low back pain including chiropractic, acupuncture, massage therapy and yoga, Accreditation Council on Continuing Medical Education in cooperation with Medscape, 2016

**New Blood Biomarkers Useful for Concussion Diagnosis**, *The utilization of GFAP and UCHl-1 in determining, traumatic brain injury, mild traumatic brain injury and mild-moderate traumatic brain injury as a triage tool to manage head trauma patients*, Accreditation Council on Continuing Medical Education in cooperation with Medscape, 2016

**Sensi Cardiac Certification Course,** Stethoscope recording of heart sounds to the computer. Creating new patient files in the sensi-cardiac software. Learning the differences in heart murmur classifications. Comparing recorded heart sounds to software database to determine normal from abnormal. **Sensi cardiac online training program with certification test, 2016.** 

**CognitiveFX concussion Certification Conference,** *Concussion 2016: beyond the sidelines, Understanding the role of cervical spine imaging in mild TBI, will football be the tobacco of this century, HB204 legal ramifications, concussion and liability, Concussion and the NFL first person account, outcome research and CFX longitudinal data, neuroimaging-guided concussion treatment.* **Utah Chiropractic Physicians Association, Salt Lake City, UT, 2016** 

**Interprofessional Hospital Based Spine Care**, *Trends in hospital and emergent care in the healthcare delivery system inclusive of policies, hospital staffing and current care paths for mechanical spine issues*. Texas Chiropretic College Graduate Doctoral Program, Academy of Chiropractic Post-Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Long Island, NY, 2016

**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.* ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Buffalo, NY, 2016 **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. ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Buffalo, NY, 2016

**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. ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Buffalo, NY, 2016

**Spinal Biomechanics in Trauma**, *To utilize 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.* ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Buffalo, NY, 2016

**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.* ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Buffalo, NY, 2016 **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 (AMOSI) 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. ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Buffalo, NY, 2016

**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. ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Buffalo, NY, 2016

**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.* ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Buffalo, NY, 2016

**MRI Spine Interpretation and Spinal Biomechanical Engineering-Primary Spine Care**, *Correlating spinal biomechanics secondary to trauma and MRI findings inclusive of herniation, bulging, protruded and extruded discs. Correlating co-efficient of forces translated form the bullet vehicle to the target vehicle to the occupant in determining causality of bodily injury,* Academy of Chiropractic, PACE approved for the Federation of Chiropractic Licensing boards, Texas Chiropractic College, Las Vegas NV, 2015

**Evidenced Based Interprofessional Collaboration- Primary Spine Care**, *Chiropractic as Primary spine care based upon the literature conclusions and the documentation requirements to support those conclusions in an ethical collaborative environment inclusive of hospitals, emergency rooms, primary care medical doctors and medical specialists.* Academy of Chiropractic, PACE approved for the Federation of Chiropractic Licensing boards, Texas Chiropractic College, Las Vegas NV, 2015 **Contemporary Literature Review of the Chiropractic Adjusting Mechanisms- Primary Spine Care**, *The latest scientific evidence of the effects of the chiropractic spinal adjustment on the central nervous system, both upper and lower motor neurons. A comparative analysis of chiropractic vs. other modalities and therapies*, Academy of Chiropractic, PACE approved for the Federation of Chiropractic Licensing boards, Texas Chiropractic College, Las Vegas NV, 2015

**Utah Labor Commission 2015 Workers Compensation Educational Conference**, *Impairment ratings*, *Utah workers compensation legal updates*. *Appeals and legislation updates*, *Administrative law panel, Seeing the injured worker first, treating upper extremity disorders, craniocerebral trauma, closed head injuries*. Utah Labor Commission, Workers Compensation division, Salt Lake City, UT, 2015

**Head Trauma, Brain Injury and Concussion**, Brain and head physiology, brain mapping and pathology as a sequella to trauma. Traumatic brain injury, mild traumatic brain injury, axonal shearing, diffuse axonal injury and concussion are detailed in etiology and clinically. Clinical presentation, advanced diagnostic imaging and electrodiagnostics are detailed in analysis to create a differential diagnosis. Balance disorders that often occur as a result of trauma are also explored from clinical presentation to advanced imaging and differential diagnosis. Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards., Academy of Chiropractic Post Doctoral Division, Long Island, NY, 2013

**Impairment Rating Certification**, *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 Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Long Island, NY, 2014

**Triaging the Trauma and Non-Trauma Patients**, *Correlating clinical findings and the patient history in determining the correct course of care in triaging the patient utilizing orthopedic and neurological evaluations in the clinical setting. Understanding the parameters for immediate referrals vs. following the continuum of care to determine the necessity for referrals.* Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Long Island, NY, 2014

**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. ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Buffalo, NY, 2014 **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. ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Buffalo, NY, 2014

**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*. ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Buffalo, NY, 2014

**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.* ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Buffalo, NY, 2014

**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. New York Chiropractic Council.* ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Buffalo, NY, 2014

**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*. ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Buffalo, NY, 2014

**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*. ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Buffalo, NY, 2014 **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-morbities and complications of stenosis*, *pseudo-protrusions*, *cantilevered vertebrate*, *Schmorl's nodes and herniations*. *Central canal and cauda equina compromise interpretation with management*. ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Buffalo, NY, 2014

**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*. ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Buffalo, NY, 2014

**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*. ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Buffalo, NY, 2014

**MRI Interpretation of Cervical Herniations**, *MRI slices*, *views*, *T1*, *T2*, *STIR Axial*, *FFE*, *FSE* and sagittal images in the interpretation of cervical herniations. With the comorbidities and complications of stenosis, pseudo-protrusions, cantilevered vertebrate, Schmorl's nodes and herniations. Morphology of cervical 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. ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Buffalo, NY, 2014

**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.* ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Buffalo, NY, 2014

Certification as a Medical Examiner, The Federal Motor Carrier Safety Administration, National Registry #6624776704, Helena, MT, 2014

**Commercial Driver License Medical Examiner Training Program, Module 8: Drug Abuse, Alcohol & Medications**, *Establish whether a driver has a disease, disorder, or injury resulting in a higher-than-acceptable likelihood for gradual or sudden incapacitation or sudden death, based on FMCSA best practice guidelines.* Medical Professionals Webinar Network, Helena, MT, 2014

**Commercial Driver License Medical Examiner Training Program, Module 7: Psychological Disorders**, *Establish whether a driver has a psychological disease or disorder that increases the risk for periodic, residual, or insidious onset of cognitive, behavioral, and/or functional impairment that endangers public safety.* Medical Professionals Webinar Network, Helena, MT, 2014

**Commercial Driver License Medical Examiner Training Program, Module 6: Neurological Conditions**, *Neurological exams in accordance with the FMCSA guidelines*. Medical Professionals Webinar Network, Helena, MT, 2014

**Commercial Driver License Medical Examiner Training Program, Module 5: Musculoskeletal Conditions**, *Physical exams of the musculoskeletal system in accordance with the FMCSA*. Medical Professionals Webinar Network, Helena, MT, 2014

**Commercial Driver License Medical Examiner Training Program, Module 4: Respiratory Conditions**, *Assessing respiratory conditions in accordance with the FMCSA regulations*. Medical Professionals Webinar Network, Helena, MT, 2014

#### **Commercial Driver License Medical Examiner Training Program, Module 3:**

**Hypertension, Cardiovascular Conditions**, Enable FMCSA-certified medical examiners to measure blood pressure, assess driver hypertension, and document findings, including advice given the driver regarding the effects of hypertension on medical fitness for duty, in accordance with FMCSA physical qualification standards and policy. Medical Professionals Webinar Network, Helena, MT, 2014

**Commercial Driver License Medical Examiner Training Program, Module 2: Non-Discretionary Conditions**, *Vision, Hearing, Diabetes and Seizures*. Medical Professionals Webinar Network, Helena, MT, 2014

**Commercial Driver License Medical Examiner Training Program, Module 1: Overview and introduction**, Enhance the medical examiner's ability to determine if a driver is medically qualified to safely operate and meet the demands of CMV driver operations. Medical Professionals Webinar Network, Helena, MT, 2014

**Certification in Whiplash Biomechanics & Injury Traumatology**, Spine Research Institute of San Diego, Las Vegas, NV, 2013

Whiplash Injury Biomechanics and Traumatology, Module 4: Medicolegal Fundamentals for Practitioners and Experts, Essentials of documentation and records keeping, medical photography, preparation for depositions, arbitrations, cross-examination and testifying, using evidence effectively, Daubert and Frye rules, disabusing the MIST or FAST myth, learned treatises and reliable authorities. Spine Research Institute of San Diego, Las Vegas, NV, 2013

Whiplash Injury Biomechanics and Traumatology, Module 3: Principles of Impairment, Writing, and Expert Documentation: Critical documentation, the fundamentals of expository scientific writing, narrative report writing, employment of standardized functional rating index', the application of AMA guidelines in personal injury and forensic practice, modern guidelines and The Best Practice Guidelines, rebuttal methods and strategies, when and how to prepare declarations and affidavits. Spine Research Institute of San Diego, Las Vegas, NV, 2013

Whiplash Injury Biomechanics and Traumatology, Module 2: Management Principles, Diagnostics, Forensic Documentation, Auto Crash Reconstruction, Special diagnostic imaging modalities, (CT, SPECT, PET, fMRI, MRI, proton density thin sliced MRI, MRA, VF, CCDS,) Electrodiagnosics, (EMG, sEMG, Dynamic EMG, EEG, BAER, VEP, ENG, BEAM, MEG, NCV, SEP, etc.) examination, evaluation and treatment (SMT/CMT being the most effective management,) Spine Research Institute of San Diego, Seattle, WA, 2012

Whiplash Injury Biomechanics and Traumatology, Module 1, Requisite and comprehensive biomechanics knowledge for clinicians, comprehensive analysis of mechanism, risk assessment and analysis of brain, spine, and extremity injuries. Spine Research Institute of San Diego, Seattle, WA, 2012

**Graston Technique, Module 1**, *Introduction to the Graston Technique,, its clinical applications, physiological effects/benefits and potential contraindications.* University of Western States, Portland, OR, 2010

### TEACHING/LECUTRING/INSTRUCTING

Lecturer, Chiropractic and health care, Utah Society of Radiologic Technologist, Salt Lake City, UT, 2016

Lecturer, Integrative Health Care, Ogden Pain Conference, Russo CME, Ogden, UT, 2014

Lecturer, Integrative Health Care, Utah Society of Radiologic Technologist, Salt Lake City, UT, 2014

Lecturer, Integrating Chiropractic at Davis County Hospital, Davis Hospital Medical Executive Committee, Layton, UT, 2013

## **MEMBERSHIPS**

Academy of Chiropractic – Active Trauma Team Member, 2017-present Academy of Chiropractic, Member, 2014-present Utah Chiropractic Physicians Association, 2014-present American Chiropractic Association, Member, 2012- present

# Expert Witness Testimony

Case Name	Date	Plaintiff Attorney	Defense Attorney
Juna Ortiz vs Matthew Stoker (Case#178300204)	01/10/2018	Brent Matthews	Brandon Hawkins