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3/19/2024

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

Primary Spine Care 15: Advanced MRI and X-Ray Documentation in Clinical Practice, *Interpreting and utilizing X-ray and MRI findings in creating demonstrative documentation. Advanced identification of spinal disc lesions, herniations, bulges, protrusion, extrusion, and fragmentations through computer graphics. Identification and demonstrative documentation of vertebral motor unit pathology and reporting demonstratively using computer graphics.* Cleveland University Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025[37]

Primary Spine Care 15; Advanced MRI Interpretation in Clinical Practice, *Utilization of thin slice acquisitions with T2 Fat suppressed, STIR, proton density, T1 and T2 sequencing for advanced identification of spinal disc lesions, herniations, bulges, protrusion, extrusion, and fragmentations. Better visualization of intradural and extradural lesions, neoplasms, and infections.* Cleveland University Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025[37]

Primary Spine Care 15; Ethics in Clinical Practice, *Ethical, collaborative relationships with medical PCPs and specialists using advanced documentation and accurate reporting of imaging and advanced imaging. Creating a collegial relationship when conflicts arise in concluding accurate diagnosis to allow consensus and the evidence to determine final diagnosis.* Cleveland University Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025[37]

Primary Spine Care 15; Spinal CAT Scan Interpretation, *Understanding the utilization of CAT Scan slicing and the reformatting when using bone and soft tissue windows. Correlating MRI to CAT Scan when either creates an unclear conclusion to render a complete image of the morphology of the indeterminate pathology. Understanding the physics of CAT Scan and the radiation levels with different types of CAT Scan technology.* Cleveland University Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025[37]

Primary Spine Care 15; Connective Tissue/Strain Sprain Pathology, *Understanding the morphology and physiology of connective tissue at the cellular and extra-cellular levels in building a foundation to understanding the function and interaction of ligaments, tendons, muscles, and bones, Identifying connective tissue pathology and the repair process with a foundation of r permanent aberrant sequella.* Cleveland University Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025[37]

Primary Spine Care 15; Advanced Spinal Biomechanical Engineering, *Understanding the concepts of normal vs. pathological movement of vertebral motor units in accurately concluding diagnosis on biomechanical pathology when considering excessive motion. An evidence-based approach to determining translation, angular deviation and rotations beyond pathobiomechanical limitations in the spine.* Cleveland University Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025[37]

Primary Spine Care 15; Trends in Spinal Care, *An evidence-based approach to concluding accurate diagnosis, prognosis, and treatment plan, Eradicating the non-specific back pain dogma utilizing X-ray digitizing based on literature standards, Creating treatment plans with identifying the primary spinal lesions using evidence-based tools.* Cleveland University Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025[37]

Primary Spine Care 15; Documentation in Clinical Practice, *Understanding and including all historical elements; current history, past history, family history, and social history when documenting a 99201, 99202, 99203, 99204, and 99205. The application of time as the prime element as per Medicode in coding examinations and re-examination with face to face, review of records and the time necessary to document in an electronic health record.* Cleveland University Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025[37]

Commercial Driver License Medical Examiner Training Program, Module 1: 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. EMedHome.com 2024. [40]

Commercial Driver License Medical Examiner Training Program, Module 2: Certification: Sole responsibility for certification decisions rests with the medical examiner. EMedHome.com 2024. [40]

Commercial Driver License Medical Examiner Training Program, Module 3: Vision and Hearing. Adequate central and peripheral vision are necessary for safe driving. The driver must perceive the relative distance of objects, and react appropriately to vehicles in adjacent lanes or reflected in the mirrors, to pass, make lane changes, and avoid other vehicles on the road. The visual demands of driving are magnified by vehicles that have larger blind spots, longer turning radiuses, and increased stopping times.EMedHome.com 2024. [40]

Commercial Driver License Medical Examiner Training Program, Module 4: Cardiovascular Regulation. Detection of an undiagnosed heart or vascular finding during a physical examination may indicate the need for further testing to adequately assess medical fitness for duty. In addition, diagnostic-specific testing may be required to detect the presence and/or severity of a known cardiovascular diagnosis. EMedHome.com 2024. [40]

Commercial Driver License Medical Examiner Training Program, Module 5: Hypertension. If a driver has hypertension and/or is being medicated for hypertension, he or she should be recertified more frequently. An individual diagnosed with Stage 1 hypertension (BP is 140/90-159/99) may be certified for one year. At recertification, an individual with a BP < 140/90 may be certified for one year; however, if his or her BP is > 140/90 but< 160/100, a one-time certificate for 3 months can be issued. EMedHome.com 2024. [40]

Commercial Driver License Medical Examiner Training Program, Module 6: Respiratory Disorders. As the medical examiner, your fundamental obligation during the respiratory assessment is to establish whether a driver has a respiratory disease or disorder that increases the risk for sudden death or incapacitation, thus endangering public safety.EMedHome.com 2024. [40]

Commercial Driver License Medical Examiner Training Program, Module 7: Neurological. Cognitive demands of a CMV driver they must be able to sustain vigilance and attention for extended periods of time in all types of conditions. EMedHome.com 2024. [40]

Commercial Driver License Medical Examiner Training Program, Module 8: Musculoskeletal disorders. Disorders of the musculoskeletal system affect driving ability and functionality EMedHome.com 2024. [40]

Commercial Driver License Medical Examiner Training Program, Module 9: Diabetes. Detection and management of both hyperglycemia and hypoglycemia and management of diabetes. EMedHome.com 2024. [40]

Commercial Driver License Medical Examiner Training Program, Module 10: Psychological Disorders. Assessment and management of psychological disorders related to commercial driving. EMedHome.com 2024. [40]

Commercial Driver License Medical Examiner Training Program, Module 11: Drug abuse and Alcoholism. Assessment of drug and alcohol abuse in commercial drivers. EMedHome.com 2024. [40]

Commercial Driver License Medical Examiner Training Program, Module 12: Medication use. Assessment of sage medication usage for commercial drivers. EMedHome.com 2024. [40]

Commercial Driver License Medical Examiner Training Program, Module 13: National Registry of Certified Medical Examiner Testing. Exam tips for NRCME certification. EMedHome.com 2024. [40]

Certification as a Medical Examiner, The Federal Motor Carrier Safety Administration, National Registry #6624776704, NRCME, FMCSA Salt Lake City, UT 2024[40]

Primary Spine Care 14: Case Management and Documentation - Spinal Biomechanics in Clinical Practice, *The utilization of X-Ray digitization to diagnose spinal biomechanical pathology and analyzing trends in healthcare when triaging mechanical spine pain. The role of credentials in interprofessional collaboration.* Cleveland University Kansas City, 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, Long Island, NY, 2023[36]

Primary Spine Care 14: Case Management and Documentation - MRI Spine Sequence Acquisition and Interpretation, *The understanding and utilization of T1, T2, STIR, Proton Density, FSE, GRE imagine sequencing for conclusive diagnosing of fracture, tumor, infection, and disc pathology. Identifying herniation, protrusion, bulge, extrusion-migrated, and extrusion-fragments on MRI images.* Cleveland University Kansas City, 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, Long Island, NY, 2023[36]

Primary Spine Care 14: Case Management and Documentation - Spinal Disc Microanatomy, *The understanding of the human spinal discal elements; annulus, nucleus pulposis, cartilaginous end plates inclusive of the neurology, visualization, differentiation from the neonate to adults. The understanding of the etiology of Modic changes on MRI and how spinal biomechanics are altered.* Cleveland University Kansas City, 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, Long Island, NY, 2023[36]

Primary Spine Care 14: Case Management and Documentation - Interprofessional Collaboration on Mechanical Back Pain in Clinical Practice, *Triaging neurologically compromised cases in conjunction with positive MRI images, and collaboratively managing cases with neurosurgeons in clinical practice. Post-operative management of spinal cases through full recovery.* Cleveland University Kansas City, 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, Long Island, NY, 2023[36]

Primary Spine Care 14: Case Management and Documentation - Spinal Biomechanical Engineering Analytic, *The analytics of spinal biomechanical engineering utilizing X-Ray digitizing for Alteration of Motion Segment Integrity and biomechanical pathology. Determining laxity of ligaments in connective tissue pathology and the long-term negative sequels of the pathology.* Cleveland University Kansas City, 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, Long Island, NY, 2023[36]

Primary Spine Care 14: Case Management and Documentation - Demonstrative Reporting of MRI Spinal Disc Pathology, *The diagnosis, and reporting of spinal disc bulges, herniations, protrusions, extrusions, and fragments. Reporting varices, Modic 1, 2, and 3, posterior longitudinal, interspinous, and intertransverse ligament. Reporting the ligamentum Flavum and epidural fat as a space-occupying lesion.* Cleveland University Kansas City, 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, Long Island, NY, 2023[36]

2023 Demonstrative Documentation Requirements, *Analyzing the requirements in anatomical diagnostic imagery to communicate spinal pathology. Integrating technology, clinical findings, and advanced graphic tools to communicate a diagnostic conclusion*. Cleveland University Kansas City, 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, 2023[35]

MRI Spine Advanced Clinical Case Grand Rounds, *Clinical case review of MRI including intra and extra-dural findings inclusive of the disc and vascular anatomical lesions. Differentially diagnosing central cord lesions, and spinal cord vascular lesions in both acute trauma and degenerative presentations.* Cleveland University Kansas City, 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, 2023[35]

Non-Specific Spine Pain, Chiropractic and Outcomes, *Analyzing neuro-biomechanical pathological lesions defines primary spinal lesions and removes the dogma of non-specific back pain. Creating evidence-based demonstrative documentation in the creation of treatment plans.* Cleveland University Kansas City, 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, 2023[35]

Spinal Tumor MRI Interpretation, Diagnosing and documenting: *Ependymoma, Astrocytoma, Hemangioblastoma, Lipoma, Meningioma, Neurofibroma, Schwannoma, Myxopapillary Ependymoma.* Cleveland University Kansas City, 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, 2023[35]

Demonstrative Narrative and Evaluation and Management Report Writing, *Clinical record-keeping, why write clinical notes, the importance of context, what to include in a clinical note, tips for better clinical documentation, basic legal considerations, open clinical notes, how to keep documentation efficient.* Cleveland University Kansas City, 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, 2023[35]

Age-Dating Ligament/Connective Tissue Physiology and Pathology, *Utilizing pain patterns, the high signal in the annulus, high signal outside the annulus, Modic changes, disc height, vacuum disc, sclerosis, Phirrman rating, facet edema, and previous MRIs to determine the chronicity of pathology., Master-Class in ligaments; anatomy, physiology, vascularization, neurological innervation, tissue repair, and how they all relate to clinical practice. Ligament pathology correlating to the mechanisms of patho-neuro-biomechanical lesions (vertebral subluxation complex). Also, how ligaments play a critical role in the chiropractic spinal adjustment and in defining the chiropractic spinal adjustment mechanisms.* Cleveland University Kansas City, 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, 2023[35]

Clinical Grand Rounds in Biomechanics, Digitizing, and Advanced Imaging: *Case reviews concluding and accurate diagnosis, prognosis, and treatment plan utilizing evidence-based instrumentation and algorithms. Using demonstrative reporting of case findings to collaborate with co-treating physicians.* Cleveland University Kansas City, 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, 2023[35]

Medical-Legal Documentation: *A documentation discussion on meeting the requirements of the courts, carriers, and licensure boards in complete and accurate reporting. Ensuring the diagnosis, prognosis, and treatment plan are demonstratively documented.* Cleveland University Kansas City, 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, 2023[35]

MRI Interpretation Review Qualified, Recognized by Cleveland University-Kansas City, Chiropractic and Health Sciences with courses recognized by the ACCGME in conjunction with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences. Qualification language approved by the American Chiropractic College of Radiology (ACCR) and the American Chiropractic Board of Radiology (ACBR) [34]

Commercial Driver License Medical Examiner Periodic Training Program, Module 1: INTRODUCTION AND OVERVIEW OF THE FEDERAL MOTOR CARRIER SAFETY REGULATIONS, *National Registry of Certified Medical examiners*, 2022

Commercial Driver License Medical Examiner Periodic Training Program, Module 2: MAINTAINING CERTIFICATION ON THE NATIONAL REGISTRY AND RECENT UPDATES TO THE FMCSRS, *National Registry of Certified Medical examiners*, 2022

Commercial Driver License Medical Examiner Periodic Training Program, Module 3: FREQUENTLY ASKED QUESTIONS, *National Registry of Certified Medical examiners*, 2022

Commercial Driver License Medical Examiner Periodic Training Program, Module 4: PERFORMING DRIVER EXAMINATIONS AND COMPLYING WITH NATIONAL REGISTRY REQUIREMENTS, *National Registry of Certified Medical examiners*, 2022

MRI Spine Clinical Grand Rounds, *Interpretation sequencing of STIR, T1, T2, Axial and Sagittal acquisitions. Landmarks, physics, and literature-based definitions of disc and osseous pathology, Visualizing, diagnosing, and documenting cervical and lumbar anatomy vs. pathology*. Academy of Chiropractic Post-Doctoral Division, Accreditation Council for Continued Medical Education in conjunction with The State University of New York at Buffalo, Jacobs School of Medicine and Biomedical Sciences, Cleveland University - Kansas City, Long Island, NY, 3/28/2022[33]

MRI Spine Clinical Grand Rounds, *Visualizing, diagnosing, and documenting lumbar spine sequencing, disc herniations, neural canals, cauda equina, conus medullaris, nerve sleeves, canal stenosis grading, and vertebral width vs. height in determining segmental remodeling. Diagnosing thecal sac abutment, central canal root compression and ligamentum flava involvement.* Academy of Chiropractic Post-Doctoral Division, Accreditation Council for Continued Medical Education in conjunction with The State University of New York at Buffalo, Jacobs School of Medicine and Biomedical Sciences, Cleveland University - Kansas City, Long Island, NY, 3/28/2022[33]

MRI Spine Clinical Grand Rounds, *Case study visualizing, diagnosing, and documenting cervical spine sequencing, disc herniations, neural canals, cauda equina, conus medullaris, and vertebral width vs. height in determining segmental remodeling. Identifying the Pons, Occipital junction, and spinal cord to identify Chiari 1 malformations*. Academy of Chiropractic Post-Doctoral Division, Accreditation Council for Continued Medical Education in conjunction with The State University of New York at Buffalo, Jacobs School of Medicine and Biomedical Sciences, Cleveland University - Kansas City, Long Island, NY, 3/28/2022[33]

MRI Spine Clinical Grand Rounds, *Visualizing, diagnosing, and documenting lumbar spine sequencing, disc extrusion type herniations, neural canals, cauda equina, conus medullaris, spondylolisthesis, degenerative spondylolisthesis, disc degeneration, neural canal and central root compressions, central canal stenosis. Varices vs. herniations, and multiple level disc pathology with biomechanical failures.* Academy of Chiropractic Post-Doctoral Division, Accreditation Council for Continued Medical Education in conjunction with The State University of New York at Buffalo, Jacobs School of Medicine and Biomedical Sciences, Cleveland University - Kansas City, Long Island, NY, 3/28/2022[33]

MRI Spine Clinical Grand Rounds, *Visualizing, diagnosing, and documenting cervical spine sequencing, disc extrusion type herniations, neural canals, disc degeneration, thecal sac compression, central canal stenosis, cord displacement, reversal of cervical curve, Chiari 1 malformation. Identifying spinal biomechanical failure in MRI sequencing, with visualizing ligamentous pathology as cause for failure. Differentially diagnosing recent vs. older trauma based upon edematous signal in T1, T2, and STIR images.* Academy of Chiropractic Post-Doctoral Division, Accreditation Council for Continued Medical Education in conjunction with The State University of New York at Buffalo, Jacobs School of Medicine and Biomedical Sciences, Cleveland University - Kansas City, Long Island, NY, 3/28/2022[33]

MRI Spine Clinical Grand Rounds, *Visualizing, diagnosing, and documenting cervical spine sequencing, multiple disc extrusion type herniations, vertebral remodeling, intradural tumor displacing the spinal cord visualized in T1, T2, and STIR sequences, neural canal stenosis, disc degeneration, thecal sac compression, central canal stenosis, cord displacement, reversal of cervical curve, Chiari 1 malformation, and identifying of inferior brain structures.* Academy of Chiropractic Post-Doctoral Division, Accreditation Council for Continued Medical Education in conjunction with The State University of New York at Buffalo, Jacobs School of Medicine and Biomedical Sciences, Cleveland University - Kansas City, Long Island, NY, 3/28/2022[33]

MRI Spine Clinical Grand Rounds, *Visualizing, diagnosing, and documenting 1) improper sequence acquisitions invalidating interpretation 2) incomplete study invalidating interpretation 3) visualizing, diagnosing, and documenting lumbar spine sequencing, multiple disc extrusion type herniations, vertebral remodeling, multiple thecal sac compressions, neural canal stenosis, disc osteophyte/ridging complex, central canal stenosis, spondylolisthesis. Identifying the spleen, liver, kidneys, inferior vena cava, and psoas musculature on imaging.* Academy of Chiropractic Post-Doctoral Division, Accreditation Council for Continued Medical Education in conjunction with The State University of New York at Buffalo, Jacobs School of Medicine and Biomedical Sciences, Cleveland University - Kansas City, Long Island, NY, 3/28/2022[33]

MRI Spine Clinical Grand Rounds, *Visualizing, diagnosing, and documenting cervical spine sequencing, cervical spondylosis, pathological spinal biomechanics, reversal of lordotic curve, and vertebral width vs. height in determining segmental remodeling, central herniation, thecal sac compression of the cord, identifying tongue, epiglottis, hyoid cartilage, pharynx, thyroid. Reviewing fat saturation sequences for osseous metastatic tumors and advanced degeneration.* Academy of Chiropractic Post-Doctoral Division, Accreditation Council for Continued Medical Education in conjunction with The State University of New York at Buffalo, Jacobs School of Medicine and Biomedical Sciences, Cleveland University - Kansas City, Long Island, NY, 3/28/2022[33]

MRI Spine Clinical Grand Rounds, *Visualizing, diagnosing, and documenting lumbar spine sequencing, degenerative disc disease, nerve root sleeve abutment, far lateral herniations vs. bulges, normal vs. dissected inferior vena cava aneurism, epidural fat as a space occupying lesion, facet arthropathy and edema, hypertrophy of ligamentum flava, and pseudo disc at the S1-S2 level.* Academy of Chiropractic Post-Doctoral Division, Accreditation Council for Continued Medical Education in conjunction with The State University of New York at Buffalo, Jacobs School of Medicine and Biomedical Sciences, Cleveland University - Kansas City, Long Island, NY, 3/28/2022[33]

MRI Spine Clinical Grand Rounds, *Visualizing, diagnosing, and documenting cervical spine sequencing utilizing T1 weighted images for pathology, inclusive of advanced degeneration and tumor detection. STIR in a fat saturated image for ligamentous pathology inclusive of the posterior longitudinal, ligamentous flava and interspinal ligaments. Normal clivus and odontoid for cerebellar tonsil location. Cerebral spinal fluid (CSF) flow and the utilization of the spinal cord's central canal for CSF transport.* Academy of Chiropractic Post-Doctoral Division, Accreditation Council for Continued Medical Education in conjunction with The State University of New York at Buffalo, Jacobs School of Medicine and Biomedical Sciences, Cleveland University - Kansas City, Long Island, NY, 3/28/2022[33]

Documentation and Coding, *CPT Coding Guidelines for Initial and Established Patients with particular attention paid to Patient History, Review of Systems, Social and Family History, Physical Examination, and Medical Decision making. Specific differences in coding levels and required elements for a 99202-99203-99204-99205, and a 99212-99213-99214-99215.* Academy of Chiropractic Post-Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing Boards, Cleveland University- Kansas City, Long Island, NY, 2/7/22[32]

Demonstrative Documentation and Ethical Relationships, *Pathways to improve coordination of care, and interprofessional communication with collaborating physicians. Maintaining ethical relationships in the medical-legal community through documentation and communication of demonstrable diagnosis, prognosis, and treatment plans.* Academy of Chiropractic Post-Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing Boards, Cleveland University- Kansas City, Long Island, NY, 2/7/22[32]

MRI Spine Interpretation, *Clinical case review of MRI's including sagittal, axial, T1, T2, STIR, and proton density sequences. Identified will be the vertebrate, spinal cord, discs, nerve roots, thecal sac, posterior longitudinal ligament, epidural veins, and fat saturation pulses. Pathology will include bulges, herniations, protrusions, extrusions, myelomalacia, cord edema, and schmorl's nodes.* Academy of Chiropractic Post-Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing Boards, Cleveland University- Kansas City, Long Island, NY, 2/7/22[32]

Spinal Biomechanical Engineering Clinical Grand Rounds, *Case reviews utilizing E/M, MRI, and x-ray mensuration report to conclude an accurate diagnosis, prognosis, and treatment plan. Common diagnosis requiring interprofessional collaboration with a discussion of diagnostic dilemmas and proper communication methods.* Academy of Chiropractic Post-Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing Boards, Cleveland University-Kansas City, Long Island, NY, 2/7/22[32]

Trends in Spinal Healthcare, *Analyzing spinal healthcare trends in both utilization and necessity and understanding the marketplace and how a clinical excellence level is reflected in a doctors' documentation and credentials. Treatment pathways in triaging spinal pathobiomechanics.* Academy of Chiropractic Post-Doctoral Division, Cleveland University – Kansas City, Long Island, NY, 6/17/2021[31]

MRI Spine Interpretation Advanced Diagnosis, *An evidence-based understanding of time-related etiology of disc pathology considering the American Society of Neuroradiology's designation of protrusion, extrusion, and sequestration of spinal discs, T1, T2, STIR and Proton-Density weighted evaluation to diagnose spine form MRI accurately*. Academy of Chiropractic Post-Doctoral Division, Cleveland University – Kansas City, Long Island, NY, 6/17/2021[31]

Spinal Biomechanical Engineering Analytics and Case Management, *Utilizing spinal mensurating algorithms to conclude a pathobiomechanical vs. normal spine in the absence of anatomical pathology. Clinically correlating a history and physical examination findings to x-ray biomechanical results in creating an accurate diagnosis, prognosis, and treatment plan.* Academy of Chiropractic Post-Doctoral Division, Cleveland University – Kansas City, Long Island, NY, 6/17/2021[31]

MSK Extremity Radiological Interpretation, Utilizing both MRI and x-ray to diagnose *1) Arthritis - Inflammatory and Degenerative, 2) Advanced cartilage assessment, 3) Rotator Cuff Tears, 4) Labral tears (shoulder and hip), 5) Tendon injuries and degeneration, 6) Meniscal tears, 7) Ligamentous injuries, 8) Common fractures, 9) Sports-related injury patterns, 10) Plantar fasciitis.* Academy of Chiropractic Post-Doctoral Division, Cleveland University – Kansas City, Long Island, NY, 6/17/2021[31]

Demonstrative Medical-Legal Documentation, *The narrative report. How to effectively create medical-legal documentation and what the courts look for. Making your "4-Corner" (narrative) report demonstrable and build a reputation as an evidence-based provider. The step-by-step minutiae of building a report.* Academy of Chiropractic Post-Doctoral Division, Cleveland University – Kansas City, Long Island, NY, 6/17/2021[31]

Managing Non-Anatomical Spine Pain, *Treatment modalities centered upon "best-outcomes" in an evidence-based model considering chiropractic vs. physical therapy and chiropractic vs. medicine. Considerations of disability, pain reduction, functional improvement, drugs utilized, and side-effects are all considered.* Academy of Chiropractic Post-Doctoral Division, Cleveland University – Kansas City, Long Island, NY, 6/17/2021[31]

Extremity MRI & Xray Interpretation of the Shoulder, *Identifying normal anatomy on both MRI and x-ray, inclusive of osseous, connective tissue, and neurological structures. Identifying fractures in the adult and pediatric cases. Differentially diagnosing various arthritic etiologies of osseous derangement.* Cleveland University Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2020[30]

Extremity MRI & Xray Interpretation of the Shoulder, *Identifying fractures in the adult and pediatric cases. Differentially diagnosing various arthritic changes vs. benign and metastatic Tumors.* Cleveland University Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2020[30]

Extremity MRI & Xray Interpretation of the Elbow, *Identifying normal anatomy on both MRI and x-ray, inclusive of osseous, connective tissue, and neurological structures, identifying fractures in the adult and pediatric cases. Differentially diagnosing various arthritic etiologies of osseous derangement. Differentially diagnosing various arthritic changes vs. benign and metastatic Tumors.* Cleveland University Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2020[30]

Extremity MRI & Xray Interpretation of the Wrist, *Identifying normal anatomy on both MRI and x-ray, inclusive of osseous, connective tissue, and neurological structures, identifying fractures in the adult and pediatric cases. Differentially diagnosing various arthritic etiologies of osseous derangement. Differentially diagnosing various arthritic changes vs. benign and metastatic Tumors.* Cleveland University Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2020[30]

Extremity MRI & Xray Interpretation of the Hand, *Identifying normal anatomy on both MRI and x-ray, inclusive of osseous, connective tissue, and neurological structures, identifying fractures in the adult and pediatric cases. Differentially diagnosing various arthritic etiologies of osseous derangement. Differentially diagnosing various arthritic changes vs. benign and metastatic Tumors.* Cleveland University Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2020[30]

Extremity MRI & Xray Interpretation of the Hip, *Identifying normal anatomy on both MRI and x-ray, inclusive of osseous, connective tissue, and neurological structures. Identifying fractures in the adult and pediatric cases. Differentially diagnosing various arthritic etiologies of osseous derangement*. Cleveland University Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2020[30]

Extremity MRI & Xray Interpretation of the Hip, *Identifying fractures in the adult and pediatric cases. Differentially diagnosing various arthritic changes vs. benign and metastatic Tumors.* Cleveland University Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2020[30]

Extremity MRI & Xray Interpretation of the Knee, *Identifying normal anatomy on both MRI and x-ray, inclusive of osseous, connective tissue, and neurological structures. Identifying fractures in the adult and pediatric cases. Differentially diagnosing various arthritic etiologies of osseous derangement.* Cleveland University Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2020[30]

Extremity MRI & Xray Interpretation of the Knee, *Identifying fractures in the adult and pediatric cases. Differentially diagnosing various arthritic changes vs. benign and metastatic Tumors.* Cleveland University Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2020[30]

Extremity MRI & Xray Interpretation of the Hand, *Identifying normal anatomy on both MRI and x-ray, inclusive of osseous, connective tissue, and neurological structures, identifying fractures in the adult and pediatric cases. Differentially diagnosing various arthritic etiologies of osseous derangement. Differentially diagnosing various arthritic changes vs. benign and metastatic Tumors.* Cleveland University Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2020[30]

Extremity MRI & Xray Interpretation of the Foot, *Identifying normal anatomy on both MRI and x-ray, inclusive of osseous, connective tissue, and neurological structures, identifying fractures in the adult and pediatric cases. Differentially diagnosing various arthritic etiologies of osseous derangement. Differentially diagnosing various arthritic changes vs. benign and metastatic Tumors.* Cleveland University Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2020[30]

Trends in Spinal Healthcare, *Analyzing spinal healthcare trends in both utilization and necessity and understanding the marketplace and how a level of clinical excellence is reflected in a doctors' documentation and credentials. Treatment pathways in triaging spinal pathobiomechanics.* Academy of Chiropractic Post-Doctoral Division, Cleveland University – Kansas City, Long Island, NY, 2020[29]

MRI Spine Interpretation, *An evidence-based understanding of time-related etiology of disc pathology considering the American Society of Neuroradiology's designation of protrusion, extrusion, and sequestration of spinal discs, Considering the signal intensity of discs in age-dating pathology and acquisition protocols for advanced spinal imaging.* Academy of Chiropractic Post-Doctoral Division, Cleveland University – Kansas City, Long Island, NY, 2020[29]

Spinal Biomechanics; A Literature Perspective, *An evidenced-based model for spinal biomechanical engineering and pathobiomechanics considering the pathophysiological limits in translations, angular deviation, and rotational planes. Utilizing the Cartesian system in plotting vertebral points to demonstratively conclude an accurate diagnosis, prognosis and biomechanical treatment plan with the consideration of long-term care in the non-specific mechanical spine pain patient when necessary.* Academy of Chiropractic Post-Doctoral Division, Cleveland University – Kansas City, Long Island, NY, 2020[29]

Case Management of Mechanical Spine Pathology, *Clinical Grand Rounds of herniated, protruded, extruded, sequestered, and bulging discs. Differentially diagnosing vascular vs. mechanical spinal lesions and the necessity for urgent vascular, neurological intervention, Collaborating in a team environment utilizing a neuroradiologist, electrophysiologist, and neurosurgeon with the chiropractor as the primary spine care provider.* Academy of Chiropractic Post-Doctoral Division, Cleveland University – Kansas City, Long Island, NY, 2020[29]

Pathobiomechanics and Documentation, *CPT Coding Guidelines for Initial and Established Patients with particular attention paid to Patient History, Review of Systems, Social and Family History, Physical Examination, and Medical Decision making. Specific differences in coding levels and required elements for a 99202-99203-99204-99205.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, Long Island, NY, 2020[29]

Using Documentation and Ethical Relationships, *Pathways to improve coordination of care, and interprofessional communication with collaborating physicians. Maintaining ethical relationships in the medical-legal community through documentation and communication of demonstrable diagnosis, prognosis and treatment plans.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, Long Island, NY, 2020[29]

Spinal Biomechanical Engineering Clinical Application, *History of clinical biomechanics with an emphasis on the diagnosis and management of spine pain of mechanical/functional origin. Evidence-based symptomatic vs. asymptomatic parameters using peer-reviewed medical index literature. Computerized mensuration analysis of spinal biomechanical pathology. Comparison of demonstrable spinal biomechanical failure on imaging to clinical evaluation and physical examination.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, Long Island, NY, 2020[29]

Spinal Biomechanical Engineering Clinical Grand Rounds, *Case reviews utilizing E/M, MRI, and x-ray mensuration report to conclude an accurate diagnosis, prognosis, and treatment plan. Common diagnosis requiring interprofessional collaboration with a discussion of diagnostic dilemmas and proper communication methods.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, Long Island, NY, 2020[29]

Traumatic Brain Injury and Concussion Overview: *This section is an in-depth overview of traumatic brain injury in concussion. It discusses that all brain injuries are traumatic and dispels the myth of a "mild traumatic brain injury." Also, this covers triage protocols and the potential sequela of patients with traumatic brain injuries.* Cleveland University, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2020[4]

Head Trauma and Traumatic Brain Injury Part 1: *This section discusses gross traumatic brain injuries from trauma and significant bleeding with both epidural and subdural hematomas. There are numerous case studies reviewed inclusive of neurosurgical intervention and postsurgical outcomes.* Cleveland University, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2020[4]

Head Trauma and Traumatic Brain Injury Part 2: *This section continues with multiple case studies of gross traumatic brain injuries from trauma requiring neurosurgical intervention and also discusses recovery sequela based upon the significance of brain trauma. This module also concludes with concussion protocols in traumatic brain injury short of demonstrable bleeding on advanced imaging.* Cleveland University, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2020[4]

Concussion And Electroencephalogram Testing: *This this section covers concussion etiology and cognitive sequela where gross bleeding has not been identified on advanced imaging. It discusses the significance of electroencephalogram testing in determining brain function and pathology (if present). This module also covers the understanding of waveforms in electroencephalogram testing in both normal and abnormal scenarios.* ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2020[4]

Concussion And Electroencephalogram Testing Pathological Results: *This module covers amplitude, conduction and conduction delays as sequela to traumatic brain injury to diagnose concussion and traumatic brain injury in the absence of gross bleeding and advanced imaging. This section covers electroencephalograms and event-related potentials which measures the brain response that is a direct result of specific sensory or motor events. It is a stereotype electrophysiological response to a stimulus and provides a noninvasive means of evaluating brain function. In this module multiple case studies are discussed with ensuing triage protocols pending the results.* ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2020[4]

Evidenced Based Care in a Collaborative Setting; Primary Spine Care 5, *A literature based model for collaborating with hospitals, medical primary care providers and specialists. Reviewing the documentation requirements to communicate the diagnosis, prognosis and treatment plans with medical entities and having the evidence as a basis for those recommendations.* Academy of Chiropractic Post-Doctoral Division, Cleveland University-Kansas City, Long Island, NY, 2020[18]

Current Literature Standards of MRI Spine Interpretation; Primary Spine Care 5, *MRI Spine Interpretation of the spine. How to triage a trauma and non-trauma with advanced imaging and document the necessity. We will also cover the basics of MRI Spine Interpretation inclusive of all types of herniations, bulges,* Academy of Chiropractic Post-Doctoral Division, Cleveland University- Kansas City, Long Island, NY, 2020[18]

Spine Brain Connection in Pain Pathways; Primary Spine Care 5, *MRI Spine The spine-brain connection in managing chronic pain patients. Understanding how chronic pain negatively effects brain morphology and potential pathology as sequella. The role of chiropractic in preventing the loss of gray matter and the most recent evidence as outlined in indexed peer reviewed literature over the last 10 years verifying chiropractic's role.* Academy of Chiropractic Post-Doctoral Division, Cleveland University- Kansas City, Long Island, NY, 2020[18]

Bio-Neuro-Mechanical Mechanism of the Chiropractic Spinal Adjustment; Primary Spine Care 5, *The biological, neurological and mechanical mechanisms and pathways from the thrust to the dorsal horn and brain connection and how the brain processes the chiropractic spinal adjustment based upon the literature. Care paths of chiropractic and physical therapy from an outcome basis,* Academy of Chiropractic Post-Doctoral Division, Cleveland University- Kansas City, Long Island, NY, 2020[18]

Connective Tissue Spinal Disc Permanent Pathology, Primary Spine Care, *Herniated, bulged, protruded and extruded discs, etiology and morphology. Age-dating disc pathology inclusive of Modic changes, piezoelectric effect, Wolff's Law and radicular clinical presentation. Academy of Chiropractic Post-Doctoral Division,* Cleveland University – Kansas City, Long Island, NY 2020[17]

Connective Tissue Pathology and Research, Primary Spine Care, *Utilization in spinal models considering the opioid abuse and various spinal models in contemporary health care. Care paths for mechanical spine pain and the evidence for conservative chiropractic care.* Academy of Chiropractic Post-Doctoral Division, Cleveland University – Kansas City, Long Island, NY 2020[17]

Bio-Neuro-Mechanical Lesions and Spine Care, Primary Spine Care, *Mechanoreceptor, proprioceptor, nociceptor innervation and control of the spinal system with central nervous system action and interaction. The integration of the pain processing network and the HPA Axis (hypothalamus, adrenal and pituitary) with the chiropractic spinal adjustment.* Academy of Chiropractic Post-Doctoral Division, Cleveland University – Kansas City, Long Island, NY 2020[17]

Ethics, Documentation and Research, Primary Spine Care, *Maintaining ethical Interprofessional relationships based upon an evidenced based practice inclusive of triage, diagnostics and reporting. Creating thorough documentation that reflects your complete findings encompassing descriptive ICD-10 codes and concludes the presence or absence of pathology.* Academy of Chiropractic Post-Doctoral Division, Cleveland University – Kansas City, Long Island, NY 2020[5]

Primary Spine Care 2: *Spinal Trauma Pathology, Morphology of healthy and traumatized connective tissue and the permanency implication of adhesions, spinal disc morphology in the healthy and pathological patient as sequella to trauma in relationship to bulges, herniations, protrusions, extrusions and sequestrations. Aberrant spinal biomechanics and negative sequella to trauma.* Cleveland University – Kansas City, Academy of Chiropractic, Setauket NY, 2020[16]

Primary Spine Care 2: *Utilizing Research in Trauma, The ability of your electronic health records to convey tissue pathology while documenting case studies, field experiments, randomized trials and systematic literature reviews, Introducing evidence based macros in documentation to support the literature and necessity of care.* Cleveland University – Kansas City, Academy of Chiropractic, Setauket NY, 2020[16]

Primary Spine Care 2: *Chiropractic Evidence, Analyzing segmental pathology, adjusting vs. mobilization with cervicogenic headaches, Opioid alternatives and case management of mechanical spine pain based upon outcome studies.* Cleveland University – Kansas City, Academy of Chiropractic, Setauket NY, 2020[16]

Primary Spine Care 2: *Chiropractic Spinal Adjustment Central Nervous System Processing, Literature reviews of mechanoreceptor, proprioceptor and nociceptor stimulation of later horn gray matter with periaqueductal stimulation affecting the thalamus and cortical regions with efferent distribution in disparate regions of the body in both pain and systemic stimulation.* Cleveland University – Kansas City, Academy of Chiropractic, Setauket NY, 2020[16]

Chiropractic-Legal Ethics, *The academic and court standards for documenting an Evaluation and Management encounter with the utilization of accurate CPT Coding. Accurately documenting your credentials based upon earned credentials.* Cleveland University Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2020

Chiropractic-Legal Ethics, *The clinical standard for ordering diagnostic tests as indicated. This includes advanced testing as MRI, CAT Scans and electrodiagnostics as electromyogram, nerve conduction studies, vestibulo-electronystagmography and somatosensory evoked potentials. The failure to order indicated testing and how it creates a public health risk and will negatively reflect on your license and reputation.* Cleveland University Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2020

Chiropractic-Legal Ethics, *Documenting and communicating your credentials in a manner consistent with licensure boards and the courts. Communicating sub-specialties as awarded through formal academic accomplishments and utilizing that level of education to better understand and explain pathology.* Cleveland University Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2020

Chiropractic-Legal Ethics, *Understanding ethical relationships about anti-kickback laws, fee-splitting and appropriate hiring practices in the clinical arena. How to use your initial patient documentation to conclude a case and ensure you are within the ethical boundaries.* Cleveland University Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2020

Neurology of Ligament Pathology- *Normal Morphology and Tissue Damage, Connective tissue morphology, embryology and wound repair as sequalae to trauma. Full components of strain-sprain models and permanency implications with wound repair and osseous aberration with aberrant structural integrity.* Academy of Chiropractic, Post-Doctoral Division, Cleveland University-Kansas City, College of Chiropractic, Long Island, NY, 2020_{22}

Neurology of Ligament Pathology- *Spinal Biomechanics and Disc Pathology, Disc pathology as sequella to trauma; herniation, extrusion, protrusion, sequestration and how the spinal unit as one system creates homeostasis to balance the pathology*. Academy of Chiropractic, Post-Doctoral Division, Cleveland University-Kansas City, College of Chiropractic, Long Island, NY, 2020_{22}

Neurology of Ligament Pathology- *Neurological Innervation, The peripheral and central innervation of the disc and spinal ligaments of the dorsal root ganglion, spinal thalamic tracts, periaqueductal gray areas innervating the Thalamus and multiple regions of the brain. The efferent neurological distribution to disparate areas of the spine to create homeostatis until tetanus ensues creating osseous changes under the effect of Wolff's Law.* Academy of Chiropractic, Post-Doctoral Division, Cleveland University-Kansas City, College of Chiropractic, Long Island, NY, 2020_{22}

Medical-Legal Ethical Relationships, *Documentation and Legal Testimony, Report writing for legal cases, the 4 corners of a narrative and documenting damages with understanding defense medical documentation and consistent reporting of bodily injuries.* Academy of Chiropractic, Post-Doctoral Division, Cleveland University-Kansas City, College of Chiropractic, Long Island, NY, 2020_{11}

Medical-Legal Ethical Relationships, Documentation and Legal Testimony, Part 2, *Understanding report writing and the types of medical reports required for court inclusive of diagnosis, prognosis and treatment plans with requirements of reporting causality and permanency.* Academy of Chiropractic, Post-Doctoral Division, Cleveland University-Kansas City, College of Chiropractic, Long Island, NY, 2020_{11}

Medical-Legal Ethical Relationships, Documentation and Direct Testimony, *Organizing your documentation and understanindg all collaborative documentation and how it fits into your diagnosis, prognosis and treatment plan, Understanding the nuances of the functional losses of your patients related to their bodily injuries,* Academy of Chiropractic, Post-Doctoral Division. Academy of Chiropractic, Post-Doctoral Division, Cleveland University-Kansas City, College of Chiropractic, Long Island, NY, 2020_{11}

Medical-Legal Ethical Relationships, Documentation and Direct Testimony Part 2, *Utilizing demonstrative documentation in direct examination and communicating the results of your care concurrently with the written documentation and reporting an accurate diagnosis for all images.* Academy of Chiropractic, Post-Doctoral Division, Cleveland University-Kansas City, College of Chiropractic, Long Island, NY, 2020_{11}

Medical-Legal Ethical Relationships, Documentation and Direct Testimony Part 3, *The evaluation, interpretation and reporting of collaborative medical specialists results and concluding an accurate diagnosis inclusive of all findings and reviewing all images to ensure an accurate diagnosis.* Academy of Chiropractic, Post-Doctoral Division, Cleveland University-Kansas City, College of Chiropractic, Long Island, NY, 2020_{11}

Medical-Legal Ethical Relationships, Documentation and Direct Testimony Part 4, *Determining and documenting disabilities and impairments inclusive of loss of enjoyment of life and duties under duress and the evaluation and validation of pain and suffering.* Academy of Chiropractic, Post-Doctoral Division, Cleveland University-Kansas City, College of Chiropractic, Long Island, NY, 2020_{11}

Medical-Legal Ethical Relationships, Documentation and Cross Examination Testimony, *Reporting your documentation factually and staying within the 4 corners of your medical report and scope of practice inclusive of understanding how your credentials allow you to report your documentation.* Academy of Chiropractic, Post-Doctoral Division, Cleveland University-Kansas City, College of Chiropractic, Long Island, NY, 2020_{11}

Medical-Legal Ethical Relationships, A Documentation Relationship Between the Doctor and Lawyer, *The level of organization required in a medical-legal case that accurately reflects the bodily injuries of your patients and the time constraints in rendering an accurate report.* Academy of Chiropractic, Post-Doctoral Division, Cleveland University-Kansas City, College of Chiropractic, Long Island, NY, 2020_{11}

Medical-Legal Ethical Relationships, Report Writing and Preparing for a Legal Case, *Reviewing the facts of the case inclusive of your documentation, the defense medical examiner, medical specialists and the attorney to ensure accurate and consistent reporting.* Academy of Chiropractic, Post-Doctoral Division, Cleveland University-Kansas City, College of Chiropractic, Long Island, NY, 2020_{11}

Medical-Legal Ethical Relationships, Report Writing and Preparing for a Legal Case, *Creating demonstrative evidence, visuals of your patient's bodily injuries inclusive of x-rays, MRI's, CAT Scans and electrodiagnostic findings, the spinal biomechanics of herniated disc with ipsilateral findings and contralateral symptomatology.* Academy of Chiropractic, Post-Doctoral Division, Cleveland University-Kansas City, College of Chiropractic, Long Island, NY, 2020[11]

ABIME Certification course 6th 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 6th 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.

Electrodiagnostics: Electromyogram/Nerve Conduction Velocity (EMG/NCV), *Diagnosis & Interpretation: Anatomy and Physiology of Electrodiagnostics: An in-depth review of basic neuro-anatomy and physiology dermatomes and myotomes to both the upper and lower extremities and the neurophysiology of axons and dendrites along with the myelin and function of saltatory for conduction. The sodium and potassium pump's function in action potentials.* Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island NY, 2019[6]

Electrodiagnostics: Electromyogram/Nerve Conduction Velocity (EMG/NCV), *Diagnosis & Interpretation: Nerve Conduction Velocity (NCV) Part 1: Nerve conduction velocity testing, the equipment required and the specifics of motor and sensory testing. This section covers the motor and sensory NCV procedures and interpretation including latency, amplitude (CMAP) physiology and interpretation including the understanding of the various nuances of the wave forms.* Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island NY, 2019[6]

Electrodiagnostics: Electromyogram/Nerve Conduction Velocity (EMG/NCV), *Diagnosis & Interpretation: Nerve Conduction Velocity (NCV) Part 2: Compound motor action potentials (CMAP) and sensory nerve action potentials (SNAP) testing and interpretation including the analysis and diagnosis of the wave forms. It also covers compressive neuropathies of the median, ulnar and posterior tibial nerves; known as carpal tunnel, cubital tunnel and tarsal tunnel syndromes. This section offers interpretation algorithms to help understand the neurodiagnostic conclusions.* Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island NY, 2019[6]

Electrodiagnostics: Electromyogram/Nerve Conduction Velocity (EMG/NCV), *Diagnosis & Interpretation: Needle Electromyogram (EMG) Studies: The EMG process, inclusive of how the test is performed and the steps required in planning and electromyographic study. This covers the spontaneous activity of a motor unit action potential, positive sharp waves and fibrillations. The insertional activity (both normal and abnormal), recruitment activity in a broad polyphasic presentation and satellite potentials. This covers the diagnosing of patterns of motor unit abnormalities including neuropathic demyelinated neuropathies along with acute myopathic neuropathies. This section also covers the ruling out of false positive and false negative results.* Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island NY, 2019_6

Electrodiagnostics: Electromyogram/Nerve Conduction Velocity (EMG/NCV), *Diagnosis & Interpretation: Overview of EMG and NCV Procedures, Results, Diagnoses and Documentation. The clinical incorporation of electrodiagnostic studies as part of a care plan where neuropathology is suspected. It also covers how to use electrodiagnostics in a collaborative environment between the chiropractor as the primary spine care provider and the surgeon, when clinically indicated. This section covers sample cases and health conclude and accurate treatment plans based upon electro-neurodiagnostic findings when clinically indicated.* Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island NY, 2019_6

Computerized Mensuration of Spinal Biomechanical Pathology, *Understanding the algorithmic interpretation of spinal biomechanical pathology in a 3-D model and creating treatment plans, impairment ratings and teaching models based upon the vertebral motor unit angles. Determining sagittal and axial alignments in creating a normative baseline for treatment goals and outcomes.* Cleveland University - Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island NY, 2019

Neurosurgical-Chiropractic Collaboration on Spinal Pathology, *Utilizing x-ray, MRI and other modalities of advanced imaging in conjunction with spinal biomechanical failure and clinical evaluation to collaboratively create treatment protocols for patients in both the operative and non-operative cases. Determining the boundaries of scope of care for both the chiropractor and neurosurgeon based upon a definitive diagnosis of the mechanical vs. an anatomical lesion.* Cleveland University - Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island NY, 2019

Documentation and Ethics in Medical-Legal Relationships, *Creating ethical relationships based upon accurate documentation reflective of the casually related condition of the injured. Ensuring accepted credentials of the doctor based upon Voir Dire standards reflected in an admissible curriculum vitae. How to present demonstrative documentation in the courts reflective of the patient's pathology.* Cleveland University - Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island NY, 2019

Coding, Documentation and Compliant Coding, *Ensuring the correct codes are utilized in an evaluation and management encounter. The correct elements are utilized to support the level of E&M coded along with a self-audit program to ensure ethical billing occurs. Guidelines for history of present illness, primary complaint, review of systems, family, social and past histories are discussed and how to document the same.* Cleveland University - Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island NY, 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 co-morbidities.* Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2019[7]

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[7]

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[7]

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[7]

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[7]

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[7]

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[20]

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[20]

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[20]

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[20]

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[20]

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$_{20}$

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$_{8}$

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$_{8}$

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$_{8}$

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$_{8}$

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$_{8}$

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$_{25}$

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[25]

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[25]

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[25]

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[28]

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[28]

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[28]

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[28]

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[28]

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[28]

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[28]

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[28]

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[28]

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[28]

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[28]

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[28]

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[28]

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[28]

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[28]

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[19]

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[19]

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[19]

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[19]

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 1st 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[19]

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[19]

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[27]

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_{14}

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 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_{14}

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_{14}

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$_{14}$

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$_{14}$

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$_{24}$

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$_{24}$

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$_{24}$

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$_3$

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$_3$

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$_3$

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$_3$

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$_{26}$

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$_{26}$

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[26]

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[15]

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[15]

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[15]

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[15]

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[23]

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[23]

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_{23}

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_{23}

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_{23}

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_{23}

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_{10}

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 UCH-l-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 Chiroprctic 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$_{21}$

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[21]

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[21]

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[21]

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[21]

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[21]

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[21]

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[21]

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[12]

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[9]

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[13]

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$_{13}$

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$_{13}$

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$_{13}$

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$_{13}$

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$_{13}$

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$_{13}$

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[13]

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[13]

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[13]

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[13]

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[13]

Certification as a Medical Examiner, The Federal Motor Carrier Safety Administration, National Registry #6624776704, Helena, MT, 2014[39]

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 [39]

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[39]

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[39]

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 [39]

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[39]

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 [39]

Commercial Driver License Medical Examiner Training Program, Module 2: Non-Discretionary Conditions, *Vision, Hearing, Diabetes and Seizures.* Medical Professionals Webinar Network, Helena, MT, 2014 [39]

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 [39]

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, Demonstrable evidence and time dating injuries with MRIs. Rayus forum Salt Lake Cit y, UT 2025.

Lecturer, When to refer/order imaging, testing, and/or specialists; how to document to support your referral/order, including EMR customization and challenges to avoid, Practice Certainty, Layton, UT 2024.

Lecturer, Ligament injuries; AOMSI; instability and healing; best treatment and documentation. Practice Certainty, Layton, UT 2024.

Lecturer, Disc injuries; Old vs. New; timing the injury occurrence with modic changes; acute injury related disc height loss; treatment and documentation. Practice Certainty, Layton, UT 2024.

Lecturer, Impairment ratings and alteration of motion segment integrity, Utah's Best Chiropractic Seminar, South Jordan, UT, 2021

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

MRI Interpretation Review Qualified – Cleveland University, Kansas City, 2022-present
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

Deposition

Case Name	Date	Plaintiff Attorney	Defense Attorney
Nicole Lagerquiest and Ari Burrel Vs. Edwin Brewer	4/14/2020	Dallin Johnson	Jeremy Seeley

Case Name	Date	Plaintiff Attorney	Defense Attorney
Phipps Vs. Jepperson	7/1/2020	Dallin Johnson	Jeremy Stuart

Case Name	Date	Plaintiff Attorney	Defense Attorney
Brinkerhoff Vs. Fleming	11/19/2020	Dallin Johnson	Nicholas Bender

Case Name	Date	Plaintiff Attorney	Defense Attorney
Cody Vanderwoude vs Guillermo A. Carpio (Case#210902387)	9/14/2022	W. Scott Lythgoe	Kristina H. Ruedas

Case Name	Date	Plaintiff Attorney	Defense Attorney
Crytal Odekirk vs Shayla L. Mason (Case#210902501)	10/5/2022	W. Scott Lythgoe	Ben Jensen

Expert Witness Testimony

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

Case Name	Date	Plaintiff Attorney	Defense Attorney
David Nolan vs Allstate (Case#190906652)	8/10/2021	Robert Froerer	Josie Brumfield

Case Name	Date	Plaintiff Attorney	Defense Attorney
Crystal Odekirk vs Shayla L. Mason (Case#210902501)	11/13/2024	W. Scott Lythgoe	Bruce C. Burt

Case Name	Date	Plaintiff Attorney	Defense Attorney
Mr. Hovey vs Mrs. Hovey	2/6/2025	Robert Hanks	

Case Name	Date	Plaintiff Attorney	Defense Attorney
Victor Salgado vs Darcy E. Layton	2/25/2025	W. Scott Lythgoe	Nanette Serrano

Case Name	Date	Plaintiff Attorney	Defense Attorney
Ebony Salgado vs Darcy E. Layton	2/25/2025	W. Scott Lythgoe	Nanette Serrano

Case Name	Date	Plaintiff Attorney	Defense Attorney
Leticia Orozco vs Darcy E. Layton	2/25/2025	W. Scott Lythgoe	Nanette Serrano

Case Name	Date	Plaintiff Attorney	Defense Attorney
Linda Aiono vs Jennifer Moller (Case# 200905718)	3/18/2025	Justin Hosman	Josie Brumfield Jonathan Cavendar

Community Service

Patriot project volunteer 2015- current