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SELECTED OCCUPATIONAL HISTORY

National Co-Director, Research Division of the Academy of Chiropractic, Long Island, NY, 2025 – Present

Clinic Director/Staff Chiropractor/Owner, Texas Chiropractic Spine and Injury Center, Austin, Texas, 2025 – Present

Clinic Director/Staff Chiropractor, Novo Chiropractic Lincoln, Lincoln, Nebraska, 2018 – 2025

EDUCATION AND LICENSURE

Doctor of Chiropractic, Licensed in the State of Texas, License # 16426, 2025 – Present

Doctor of Chiropractic, Licensed in the State of Nebraska, License # 1992, 2018 – Present

Doctorate of Chiropractic, Palmer College of Chiropractic, Davenport, Iowa, 2018

Preceptorship, Higher Health Chiropractic, Grand Rapids, Michigan, 2018

National Board of Chiropractic Examiners, Physiotherapy, 2018

National Board of Chiropractic Examiners, Part IV, 2018

National Board of Chiropractic Examiners, Part III, 2018

National Board of Chiropractic Examiners, Part II, 2018

National Board of Chiropractic Examiners, Part I, 2018

Bachelor of Arts in the study of Business Administration and Marketing, Hastings College, Hastings, Nebraska, 2015

CERTIFICATIONS, QUALIFICATION, AND DIPLOMATES

Fellow, Primary Spine Care, Academy of Chiropractic, 2023 – Present

Mini-Fellowship in Neuroradiology MRI Spine Interpretation, Cleveland University – Kansas City, 2023

Documentation and Diagnosing Qualified – Cleveland University, Kansas City, 2023

Evaluation & Management Qualified – Cleveland University, Kansas City, 2023

Mini-Fellowship in MSK Extremity Imaging, Cleveland University – Kansas City, 2023

Primary Spine Care Qualification – Connective Tissue Pathology: *The Primary Spine Care Qualification encompasses advanced graduate chiropractic and medical education focusing on healthy and traumatically altered spinal morphology. This includes an in-depth understanding of osseous, connective tissue, and neurological structures, as well as their respective functions and pathologies. This comprehensive training equips professionals with the ability to assess and address a wide range of spinal conditions with precision and expertise.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, College of Chiropractic, Long Island, NY, 2023 - Present

Primary Spine Care Qualification – Connective Tissue Pathology: *The Primary Spine Care Qualification encompasses evaluating predictive models of spinal biomechanics and developing engineering paradigms for treatment plans aimed at optimizing spinal homeostasis. This process is grounded in evidence-based methodologies, ensuring that the latest scientific research supports each treatment approach. Such qualifications underscore a practitioner's commitment to delivering the highest standards of spinal care, leveraging data-driven conclusions for effective outcomes.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, College of Chiropractic, Long Island, NY, 2023 - Present

Primary Spine Care Qualification – Advanced Imaging: *The Primary Spine Care Qualification is a comprehensive program designed to equip practitioners with the expertise to triage patients with spinal injuries and coordinate collaborative care throughout the entire continuum of recovery. It encompasses the full spectrum of spinal MRI interpretation, including the identification of disc pathology, intradural tumors, and other space-occupying lesions. Additionally, the curriculum provides detailed instruction on MRI protocols to ensure accurate and effective diagnoses, enabling practitioners to deliver evidence-based care tailored to each patient's unique needs.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, College of Chiropractic, Long Island, NY, 2023 – Present

Trauma Qualification - Imaging: *This advanced qualification integrates graduate-level medical and chiropractic education to provide comprehensive expertise in triaging injured patients. Training begins with a strong foundation in patient history-taking, clinical examination, and basic imaging, equipping practitioners with the essential tools to effectively assess and diagnose trauma cases. Advanced imaging modules focus on mastering MRI spine interpretation, enabling practitioners to identify and differentiate conditions such as herniated, bulged, protruded, and extruded discs with precision.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, College of Chiropractic, Long Island, NY, 2022 - Present

Trauma Qualification - Spinal Biomechanics: *A significant emphasis is placed on spinal biomechanics and the management of non-anatomical pathology, offering an in-depth understanding of complex spinal conditions. This qualification also includes accident engineering principles, which assist in analyzing the mechanisms of injury to improve clinical outcomes. Advanced case management protocols are a central theme, ensuring practitioners can design and implement effective, evidence-based treatment plans.* Academy of Chiropractic

Post-Doctoral Division, Cleveland University Kansas City, College of Chiropractic, Long Island, NY, 2022 - Present

Trauma Qualification - Comorbidity Triaging: *Specialized topics such as electrodiagnostics, connective tissue pathology, and stroke diagnosis in a primary care setting are covered comprehensively. These advanced diagnostic skills prepare practitioners to manage a wide range of trauma-related conditions. This advanced qualification underscores a detailed understanding of trauma and its complex presentation in clinical practice.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, College of Chiropractic, Long Island, NY, 2022 - Present

Hospital Based Spine Care Qualified in Co-credentialed through the ACCME (Accreditation Council for Continuing Medical Education), Cleveland University – Kansas City and the Academy of Chiropractic, Long Island, New York, 2022

MRI Interpretation Review Qualification – Physics and Protocols: *The MRI Interpretation Review Qualification provides an in-depth understanding of MRI physics, focusing on sequencing protocols and acquisition signals. This includes training in T1, T2, STIR, T2 Fat Saturation, proton density, and Fast Spin Echo sequences in sagittal, axial, and coronal planes. Emphasis is placed on Tesla strength and image clarity, ensuring precision in imaging for accurate diagnosis.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, College of Chiropractic, Long Island, NY, 2022 - Present

MRI Interpretation Review Qualification – Spine Interpretation: *This qualification also covers the integration of clinical correlation with imaging findings to enhance collaborative case management with medical specialists. Participants are trained to diagnose both intra- and extra-dural pathologies, such as varices and neoplasms, through advanced imaging protocols. Detailed instruction on basic and advanced sequencing is tailored to identify specific tissue pathologies effectively.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, College of Chiropractic, Long Island, NY, 2022 - Present

MRI Interpretation Review Qualification – MKS Extremity Interpretation: *Moreover, the program extends beyond spinal and brain imaging to include musculoskeletal (MSK) imaging of the entire skeletal system. It encompasses X-ray and MRI protocols for the shoulder, elbow, wrist, hand, and fingers in the upper extremities, as well as the hip, knee, ankle, and toes in the lower extremities. This comprehensive approach equips participants with the expertise needed for accurate imaging interpretation across diverse anatomical regions.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, College of Chiropractic, Long Island, NY, 2022 - Present

SELECTED POST-GRADUATE EDUCATION

When HHS Regulations Apply, *Introduction to human research protections, the Common Rule, and the offices and agencies that oversee human subjects research.* Human Research Protection Foundational Training, U.S. Department of Health and Human Services, Office for Human Research Protections, 2025

What is Human Subjects Research, *Detailed how the Common Rule defines “research” and “human subjects” and explains what it means to be exempt from the Common Rule.* Human Research Protection Foundational Training, U.S. Department of Health and Human Services, Office for Human Research Protections, 2025

What are IRBs, *Explanation of the purpose of and membership requirements for Institutional Review Boards (IRBs).* Human Research Protection Foundational Training, U.S. Department of Health and Human Services, Office for Human Research Protections, 2025

IRB Review of Research, *Description of the regulatory requirements for IRB review and the criteria for IRB review and approval under the Common Rule.* Human Research Protection Foundational Training, U.S. Department of Health and Human Services, Office for Human Research Protections, 2025

Institutional Oversight of Human Research, *Explanation of the requirements for research institutions and IRBs for ensuring regulatory compliance and oversight of research to protect human participants.* Human Research Protection Foundational Training, U.S. Department of Health and Human Services, Office for Human Research Protections, 2025

National Spine Management Conference - Spring 2025, *An advanced course in Personal Injury Case Management, emphasizing patient intake standardization, lien negotiation strategies, billing compliance under PIP/MedPay frameworks, and risk management protocols. The training focused on optimizing communication with legal representatives, understanding state-specific prompt pay laws, and utilizing liens and letters of protection agreements to secure payment for services.* National Spine Management Group, Federation of Chiropractic Licensing Boards, PACE Program 2025

National Spine Management Conference - Spring 2025, *Coursework in MRI and disc pathology analysis in personal injury, covering the historical evolution of MRI, quality standards for imaging, application of Fardon classification for disc injuries, and causation documentation strategies. Evaluated acute versus chronic pathology on imaging and were trained in correlating MRI findings with clinical examination for legal defensibility.* National Spine Management Group, Federation of Chiropractic Licensing Boards, PACE Program 2025

National Spine Management Conference - Spring 2025, *Completed training on ligamentous injury assessment and impairment ratings based on the AMA Guides to the Evaluation of Permanent Impairment. Focus was placed on Alteration of Motion Segment Integrity (AOMSI) diagnosis through flexion-extension radiographs, validation of measurements via inter-rater reliability, reproducibility standards, and automation to ensure legal defensibility. The curriculum prepared providers to identify and document ligament instability with high evidentiary standards.* National Spine Management Group, Federation of Chiropractic Licensing Boards, PACE Program 2025

National Spine Management Conference - Spring 2025, *Advanced instruction in Biomarker and Genetic Profiling in Traumatic Brain Injury (TBI) assessment, including the clinical application of circulating protein biomarkers (GFAP, S-100B, UCH-L1, NF-H) and genetic risk profiling (ApoE, MTHFR). The course*

emphasized integrating biomarker results with clinical findings and neuroimaging to improve TBI diagnosis and prognosis, with a focus on medico-legal application. National Spine Management Group, Federation of Chiropractic Licensing Boards, PACE Program 2025

National Spine Management Conference - Spring 2025, *Completed technical coursework on Deposition and Trial Testimony Preparation, addressing pre-litigation procedures, deposition defense strategies, and courtroom testimony practices for chiropractors. Emphasis was placed on narrative clarity, record review, understanding fact versus expert witness roles, and the strategic use of visuals to enhance testimony credibility.* National Spine Management Group, Federation of Chiropractic Licensing Boards, PACE Program 2025

National Spine Management Conference - Spring 2025, *Successfully completed coursework in Introduction to MRI Hardware and Imaging Physics, detailing the operation of B0 main magnetic fields, RF coils, gradient systems, and the Fourier transform's role in image reconstruction. Providers gained an understanding of MRI signal formation, the importance of field homogeneity, and the impact of imaging parameters on diagnostic accuracy.* National Spine Management Group, Federation of Chiropractic Licensing Boards, PACE Program 2025

National Spine Management Conference - Spring 2025, *Completed detailed training in CT Imaging Principles for Spine Management, focusing on the Lambert-Beer Law, Radon transform, filtered back projection techniques, and Hounsfield Unit calibration. Instruction covered diagnostic applications in fracture and disc injury identification, artifact management, and strategies for minimizing radiation exposure under ALARA principles.* National Spine Management Group, Federation of Chiropractic Licensing Boards, PACE Program 2025

National Spine Management Conference - Spring 2025, *Completed a specialized program in Clinical Documentation Strategies for Personal Injury Cases, including structured E/M SOAP notes, narrative report construction, impairment rating documentation, and causality statements. Providers were trained to align subjective complaints with objective findings and treatment plans, enhancing both clinical management and legal defensibility.* National Spine Management Group, Federation of Chiropractic Licensing Boards, PACE Program 2025

National Spine Management Conference - Spring 2025, *Completed advanced coursework in Concussion Diagnosis and Management, with a focus on clinical symptom classification, Rivermead Post-Concussion Symptoms Questionnaire scoring, and integration of biomarkers for objective injury confirmation. Participants learned strategies for early identification and management of post-concussion syndrome and traumatic brain injuries.* National Spine Management Group, Federation of Chiropractic Licensing Boards, PACE Program 2025

National Spine Management Conference - Spring 2025, *Successfully completed training on the Use of Circulating Biomarkers and Diffusion Tensor Imaging (DTI) in the Assessment of Mild Traumatic Brain Injury (mTBI), covering the interpretation of UCH-L1, GFAP, and S-100B results, and the application of DTI for microstructural brain injury visualization. Emphasis was placed on integrating blood biomarker analysis with*

neuroimaging findings for legal and clinical documentation. National Spine Management Group, Federation of Chiropractic Licensing Boards, PACE Program 2025

National Spine Management Conference - Spring 2025, *Completed focused instruction on Concussion Subtypes, Clinical Categorization, and Personalized Care Pathway Development. Participants were trained to identify cognitive, vestibular, ocular, cervical, and mood/anxiety-related concussion presentations and design targeted treatment strategies based on symptomatology.* National Spine Management Group, Federation of Chiropractic Licensing Boards, PACE Program 2025

Clinical Necessity & Diagnosis: *Clinical coordination of a diagnosis, prognosis, and treatment plan in patient management. Plain imaging and MRI studies are used to conclusively diagnose myelopathy, myelomalacia, or cord edema as sequella to spinal disc pathology. The inclusion of the evidence in the literature to meet usual and customary standards in case management.* Cleveland University – Kansas City, Academy of Chiropractic Post-Doctoral Division, Buffalo, New York, 2024

Ethical and Compliant Doctor-Patient Relationships, *The Utilization of discount medical plan organizations to ensure ethical and compliant doctor-patient relationships when considering a 2-fee system in clinical practice.* Cleveland University – Kansas City, Academy of Chiropractic Post-Doctoral Division, Buffalo, New York, 2024

Patient Triage and Documentation, *Utilizing a complete history and evaluation, triaging the chronic and acute patient with consideration of collaboration with medical specialists as indicated. Correlation the patient intake forms, clinical history, evaluation, and testing, including X-rays, MRI, CAT Scan and EMGs in determining a treatment plan.* Academy of Chiropractic-Post Doctoral Division, Cleveland University Kansas City, College of Chiropractic, Long Island, NY, 2024

Triage Based on MRI Findings, *Understanding MRI ordering sequences, T1, T2, STIR, Proton Density, and other sequences to conclude an accurate diagnosis. Clinically correlating history, clinical findings to advanced imaging to determine appropriate triage and an accurate conclusive diagnosis.* Academy of Chiropractic-Post Doctoral Division, Cleveland University Kansas City, College of Chiropractic, Long Island, NY, 2024

Documenting Biomechanical Pathology and Triage, *Concluding an accurate diagnosis, based on x-ray digitizing, and outcome studies in the literature to determine triage and the possible necessity for collaborative care with medical specialists. The documentation requirements for accurate communication between professions to ensure an accurate treatment plan is created and followed.* Academy of Chiropractic-Post Doctoral Division, Cleveland University Kansas City, College of Chiropractic, Long Island, NY, 2024

Templates and Shortcuts in Diagnosing and Documentation, *Documenting basics of diagnosing bodily injuries vs. pain, and the correct utilization of active vs. sequella coding. Diagnosing the radiation of pain and ensuring etiology is diagnosed and not solely the effect of the pathology. Documenting pathologies with the understanding of relative weights of the ICD.* Academy of Chiropractic Post-Doctoral Division, PACE Approved for The Federation of Chiropractic Licensing Boards, Long Island, NY, 2024

Templates and Shortcuts in Diagnosing and Documentation, *Understanding spinal biomechanical engineering and biomechanical pathologies to correctly diagnose and document according to demonstrative validation of the specific connective tissue injuries. Considering outcomes studies in spinal analytics when concluding an accurate diagnosis, prognosis, and treatment plan. The safe use of X-rays when utilizing digitizing tools to conclude an accurate biomechanical diagnosis.* Academy of Chiropractic Post-Doctoral Division, PACE Approved for The Federation of Chiropractic Licensing Boards, Long Island, NY, 2024

Templates and Shortcuts in Diagnosing and Documentation, *Utilization of Federal Daubert admissibility standards when documenting the utilization of tools, devices, and modalities in treatment. The applicability of research meeting Federal and state requirements for the necessity of treatment in clinical practice. How a doctor's credentials lead to better outcomes, and resolve many issues based on the knowledge attained while earning the credentials.* Academy of Chiropractic Post-Doctoral Division, PACE Approved for The Federation of Chiropractic Licensing Boards, Long Island, NY, 2024

Required Elements for 100% Reimbursement, *Diagnosing Active, Sequella, and Subsequent encounter codes for connective tissue pathology. The documentation elements are required for 99202, 99203, 99204, and 99205. Developing ethical financial relationships for reimbursement in the medical-legal community and the documentation required. Using laws, regulations, and case law in contemporary practice to manage cases.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, College of Chiropractic, Long Island, NY, 2024

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, 2023

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, 2023

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, 2023

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 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, 2023

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, 2023

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, 2023

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, 2023

Primary Spine Care 15; Documentation in Clinical Practice, *Understanding and including all historical elements; current history, 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, 2023

Fellow, Primary Spine Care, 2-year program on spinal trauma, spinal management, advanced imaging, electrodiagnostics, accident engineering, spinal biomechanical engineering, triaging the injured, stroke diagnosis, demonstrative documentation, connective tissue pathology, ligament pathology diagnosis and management, and spinal treatment evidence-based outcome studies. *The program requires collaboration in advanced imaging for spinal and MSK radiology and to be published in case studies.* Certified in Joint Providership from the State University of New York at Buffalo, Jacobs School of Medicine, Office of Continuing Medical Education, Cleveland University Kansas City, College of Chiropractic, and the Academy of Chiropractic, Long Island, NY, 2023

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, 2023

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, 2023

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, 2023

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, 2023

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, 2023

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, 2023

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, 2023

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, 2023

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, 2023

Forensic Documentation- Record Review and Documentation Reporting, *How to report records of collaborative treating doctors and communicating your scope of practice in the management of your case. How to ethically report your role as a doctor in medical-legal cases*, Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2023

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, 2023 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, 2023

Medical-Legal Ethical Relationships, Documentation and Direct Testimony, Organizing your documentation and understanding 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, 2023

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, 2023

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, 2023

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, 2023

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, 2023

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, 2023

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, 2023

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, 2023

Triage and Compliance, Documentation and Diagnosing, *Creating care paths using clinical examination and advanced diagnostics to formulate care paths including collaborative care. Documenting and diagnosing spinal biomechanical lesions, disc pathology from MRI including, but limited to herniations, bulges, extrusions, sequestrations and non-disc spinal lesions from varices and neoplastic space occupying lesions.* Cleveland university Kansas City, College of Chiropractic and the Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2023

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.* 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

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.* 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

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.* 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

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.* 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

Mini-Fellowship in Neuroradiology – MRI Spine – Part 1, *Evidence-based studies in Modic Changes, Disc and Referred Pain, MRI and Cervical Musculature, Kinetic MRI Images, Neurological Innervation, MRI and Injury Mechanisms, Discogenic Pain, Annular Tears and Fissures, Asymptomatic Herniations.* 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

Mini-Fellowship in Neuroradiology – MRI Spine – Part 2, *Identify and oral examination of 60 MRI sequences (over 2500 images) of disc bulges, circumferential, radial, and transverse fissures, varices, and herniations inclusive of the following types: protrusion, extrusions (sequestered and migrated/comminuted extrusions). MRI sequencing for accurate interpretation with contemporary nomenclature and reporting.* 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

Mini-Fellowship in Neuroradiology – MRI Spine – Part 2, *Identify and oral examination of 60 MRI sequences (over 2500 images) of disc bulges, circumferential, radial, and transverse fissures, varices, and herniations inclusive of the following types: protrusion, extrusions (sequestered and migrated/comminuted extrusions). MRI sequencing for accurate interpretation with contemporary nomenclature and reporting.* 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

Mini-Fellowship in Musculoskeletal Radiology – MSK Extremities, *Identifying arthritis, advanced cartilage pathology, rotator cuff tears, labral tears, tendon injuries and degeneration, meniscal tears, ligamentous injuries, common fractures, sports related injury patterns, and plantar fasciitis in both upper and lower extremities.* 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

Mini-Fellowship in Musculoskeletal Radiology – MSK Extremities – Clinical Research, *Contemporary literature-based evidence with rheumatoid, osteo, spondylar, gouty, and Psoriatic arthritis, advanced cartilage pathology, rotator cuff tears, labral tears, tendon injuries and degeneration, meniscal tears, ligamentous injuries, common fractures, sports related injury patterns, and plantar fasciitis in both upper and lower extremities.* 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

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

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

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

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

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

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

Medical-Legal-Insurance Documentation, *Accurate and compliant documentation of history and clinical findings inclusive of functional losses, loss of activities of daily living, duties under duress and permanent loss of enjoyment of life. Prognosing static vs. stable care, gaps in care both in the onset and in the middle of passive care with a focus on detailed diagnosing. The integration of chiropractic academia, the court system and the insurance reimbursor's requirements for complete documentation.* Cleveland University – Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2023

Diagnosing and Case Management, *The requirements for diagnosing based upon in an initial evaluation and management encounter ranging from a 99202 – 99205 that includes comorbidities, non-musculoskeletal, and sequelae to injury diagnosis.* 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

Diagnosing and Case Management, *The requirements for diagnosing imaging inclusive of static x-rays, biomechanical x-rays, and MRI. Documenting the clinical findings of disc bulge, herniation, protrusion, extrusion, and fragmentation. Coding, diagnosing, and documenting individual treatment encounters in the clinical setting.* 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

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, 2023

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, 2023

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, 2023

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, 2023

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, 2023

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, 2023

Documenting Trauma, *The documentation of biomechanical and anatomical pathology with trauma patients. Clinically correlating diagnosis, demonstrative bodily injury-pathology and persistent functional losses.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, College of Chiropractic, Long Island, NY, 2023

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, 2023

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, 2023

MRI Spine Interpretation, *Clinical case review of MRI's including sagittal, axial, T1, T2, STIR, and proton density sequences. Identified will be the vertebrae, 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, 2023

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, 2023

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.* 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

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.* 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

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.* 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

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.* 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

Documentation in Medical Collaborative Cases, *Concluding an E&M report in cases involving medical primary care providers of medical specialists that have complicated case histories, significant risk factors, and inconclusive findings. Triage and management of complicated cases requiring the clinical evaluation, advanced imaging and electrodiagnostics.* 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

MRI Spine Interpretation and Protocols, *Contemporary acquisition protocols including slice thicknesses and sequences inclusive of the ordering process. Interpretation of axial, sagittal and coronal views in T1, T2 and stir views inclusive of the disc, spinal cord, extra-dural and intra-dural 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, Buffalo, NY, 2023

Ethics and Medical Collaboration, *Having referral relationships with emergency rooms, neurosurgeons, orthopedic surgeons, pain management specialists, neurologists, neuroradiologist and medical primary care providers based upon clinical dilemmas that processed after a thorough history, examination and imaging if clinically indicated to conclude diagnostic dilemmas. Utilizing evidence-based protocols and acquisition of images and treatment pathways, collaborating with medical specialists and primaries to conclude and accurate treatment plan.* 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

Documentation in a Medical – Legal and Insurances, *Constructing and concluding an E&M (99202-99205) report that accurately reflects the history, clinical findings and management of trauma cases that concurrently meets the needs of both the carriers in the courts and ethical relationship that concurrently matches the standards of both contemporary academia requirements and a contemporary literature-based standard.* 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

Coding and Care Planning, *ICD -10, and CPT cross-coding requirements form the acute stage through rehabilitation, including home care. The documentation of passive vs. active care in chronic and trauma case management.* Cleveland University Kansas City, College of Chiropractic, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2023

Coding and Care Planning with Spinal Biomechanical Pathology, *The documentation of short and long-term care, including demonstrative validation or spinal pathology in the clinical setting. Connective tissue pathological mechanisms in chronic and traumatic etiology.* Cleveland University Kansas City, College of Chiropractic, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2023

The Safe Use of X-Ray in a Clinical Setting, *Utilizing the guidelines created by the American College of Radiology and the evidence in the scientific literature for case management involving x-ray. Understanding the standards for safe radiation exposure when creating a demonstrative spinal biomechanical diagnosis and ruling out anatomical pathology.* Cleveland University Kansas City, College of Chiropractic, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2023

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

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

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

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

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

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, Phirman 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

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

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

Chiropractic as the First Option for Spine, A Literature-Based Standard, *Utilizing clinical findings in conjunction with advanced imaging and electrodiagnostic findings in managing collaborative relationships with medical specialists. Applying a literature standard to care to ensure conservative care as the first option.* 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, 2022

Chiropractic as the First Option for Spine, A Literature-Based Standard, *Managing spinal related cases based upon MRI findings of herniations, bulges, protrusion, extrusions (comminuted and fragmented) utilizing thin-sliced acquisition protocols. When to consider ordering T1, T2, Short Tau Inversion Radiant, proton density and Dixon sequencing for spinal related 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, Buffalo, NY, 2022

Chiropractic as the First Option for Spine, A Literature-Based Standard, *Creating literature-based documentation inclusive of history and a clinical examination that encompasses causality, diagnosis, prognosis and treatment plans. Ensuring the whole person impairment ratings are consistent with contemporary literature.* 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, 2022

Chiropractic as the First Option for Spine, A Literature-Based Standard, *Spinal biomechanical engineering models related to pathobiomechanics and literature-based standards in creating an accurate diagnosis, prognosis, and treatment plan. Determining impairment ratings based upon alteration of motion segment integrity utilizing motion-imaging, and creating demonstrable evidence for continued 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, 2022

Imaging, Case and Strain/Sprain Reporting, *Documentation, and coding for x-ray and MRI reports, and patient education. Connective tissue pathology as sequella to trauma and diagnosing of ligament laxity and strain-sprain in conjunction with biomechanical lesions of the human spine. The demonstrative reporting of spinal biomechanical lesions and the subsequent creation of treatment plans.* Cleveland University Kansas City, College of Chiropractic, Academy of Chiropractic, Long Island, NY, 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, 2022

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, 2022

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, 2022

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, 2022

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, 2022

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, 2022

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, 2022

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, 2022

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, 2022

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 interspinous 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, 2022

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, 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, 2022

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, 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, 2022

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, 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, 2022

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, 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, 2022

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, 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, 2022

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, 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, 2022

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, 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, 2022

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, 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, 2022

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, 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, 2022

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, 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, 2022

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, 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, 2022

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.* 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, 2022

Case Management, Spinal MRI and Documentation Documenting Herniated Discs, Age-Dating Disc Pathology, and Connective Tissue Pathology as Sequella to Trauma, *Herniated Discs and Connective Tissue Pathology, differentially diagnosing herniated discs vs. normal and bulging discs and protruded, extruded and fragmented discs. Normal vs. Pathological connective tissues and age-dating herniated discs.* 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, 2022

Case Management, Spinal MRI and Documentation, Case Management of Traumatic Spinal Injuries, *Understanding flexion-extension cervical injuries and diagnosing connective tissue pathology. Determining impairments and the literature-based standard for permanent injuries.* 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, 2022

Case Management, Spinal MRI and Documentation, Managing Herniated and Bulging Discs, Serious Injury in Non-Herniated Cases from Trauma, *Spinal disc morphology, and innervation. Herniated, bulged, protruded, and sequestered disc characteristics and management. Literature-based documentation requirements for no-disc spinal injuries.* 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, 2022

Case Management, Spinal MRI and Documentation, Herniated Discs and Permanent Brain Malfunction & Biomechanical Failure, *A case-study of a post-traumatic herniated disc and related brain malfunction supported by contemporary literature, MRI acquisition, and necessity protocols.* 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, 2022

Case Management, Spinal MRI and Documentation, Demonstrative Documentation of Disc Herniation and MRI Physics, *Understanding the documentation requirements to demonstratively show spinal disc lesions in reporting pathology. Understanding the physics of a nucleus resonating in T1 and T2 weighted imagery.* 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, 2022

Case Management, Spinal MRI and Documentation, Post-Traumatic Herniated Discs, Related Migraines-Headaches & Strain/Sprain Permanences, *Relationship of headaches, and migraines to cervical spine disc herniation, clinical rationale for ordering MRI's and the relationship of ligamentous pathology to spinal trauma.* 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, 2022

Case Management, Spinal MRI and Documentation, Documentation of Low-Speed Crashes in Determining Etiology of Serious Bodily Injuries, *Documentation requirements during the evaluation, and management encounter to understand the etiology of spinal injuries. Having a complete understanding the forces involved to conclude a differential diagnosis, while concurrent ruling malingerers, if applicable.* 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, 2022

MRI Spinal Anatomy, *Protocols and Disc Pathology, Normal anatomy of axial and sagittal views utilizing T1, T2, gradient and STIR sequences of imaging. Degeneration and annular fissures of discs in both trauma and non-trauma patients and the biochemical properties of joints in age dating pathology. Disc bulges from degenerative and sequela to osseous issues, herniation pathology and protrusion, extrusion, migrated and sequestered variations. Clinical scenarios as sequela to disc and pre-existing pathologies.* 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, New York, 2022

MRI Spine Interpretation, *Herniated, bulged, extruded, protruded, sequestered and degenerative discs. The morphology of a pathological disc vs. normal morphology and the sequences required including T1, T2 and STIR for all spinal regions. Modic 1-2-3 changes detailed and the traumatic relationship.* 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, New York, 2022

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.* 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, 2022

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.* 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, 2022

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.* 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, 2022

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.* 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, 2022

Neurology of Ligament Pathology- Normal Morphology and Tissue Damage, *Connective tissue morphology, embryology and wound repair as sequelae 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, 2022

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, 2022

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 homeostasis 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, 2022

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 - 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, 2022

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 - 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, 2022

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 - 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, 2022

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. 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, 2022

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. 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, 2022

Impairment Rating, 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, dislocation and functional loss are also detailed in relation to impairment ratings. 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, 2022

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, 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, 2022

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, 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, 2022

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, 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, 2022

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, 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, 2022

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, 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, 2022

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.* 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, New York, 2022

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.* 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, New York, 2022

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.* 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, New York, 2022

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. 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, New York, 2022

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.* 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, New York, 2022

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.* 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, New York, 2022

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.* 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, 2022

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.* 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, 2022

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.* 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, 2022

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 sequelae to pathobiomechanics from trauma. The utilization of digital motion x-ray in diagnosing normal versus abnormal facet motion along with case studies to understand the clinical application.* 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, 2022

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, ocular and proprioceptive neurological integration in the righting reflex as evidenced in imaging. Digital and numerical algorithm in analyzing a spine.* 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, 2022

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.* 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, 2022

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 rotational 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.* 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, 2022

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 rotational 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.* 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, 2022

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.* Cleveland University – Kansas City, Academy of

Chiropractic Post-Doctoral Division, Long Island, NY, 2022

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.* Cleveland University – Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2022

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.* Cleveland University – Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2022

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.* Cleveland University – Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2022

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.* 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, 2022
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.* 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, 2022

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.* 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, 2022

MRI Spinal Pathology, *MRI interpretation of bone, intradural, extradural, cord and neural sleeve lesions. Tuberculosis, drop lesions, metastasis, ependymoma, schwannoma and numerous other spinal related tumors and lesions.* 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, 2022

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.*

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, 2022

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.* 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, 2022

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 sequelae, including bulge, herniation, protrusion, extrusion and sequestration.* 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, 2022

MRI Interpretation of Lumbar Degeneration/Bulges, *MRI slices, views, T1, T2, STIR axial, stacking, FFE, FSE and sagittal images in the interpretation of lumbar degeneration. With the co-morbidities and complications of stenosis, pseudo-protrusions, cantilevered vertebrate, Schmorl's nodes and herniations. Central canal and cauda equina compromise interpretation with management.* 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, 2022

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-morbidities and complications of stenosis, pseudo-protrusions, cantilevered vertebrate, Schmorl's nodes and herniations. Morphology of lumbar disc pathologies of central and lateral herniations, protrusions, extrusions, sequestration, focal and broad based herniations are defined and illustrated. Central canal and cauda equina compromise interpretation with management.* 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, 2022

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.* 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, 2022

MRI Interpretation of Cervical Herniations, *MRI slices, views, T1, T2, STIR Axial, FFE, FSE and sagittal images in the interpretation of lumbar herniations. With the co-morbidities and complications of stenosis, pseudo-protrusions, cantilevered vertebrate, Schmorl's nodes and herniations. morphology of lumbar disc*

pathologies of central and lateral herniations, protrusions, extrusions, sequestration, focal and broad based herniations are defined and illustrated. Spinal cord and canal compromise interpretation with management. 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, 2022

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. 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, 2022

Documenting Clinical Findings and Diagnosis, Correlating clinical findings with x-ray and advanced imaging to conclude and accurate diagnosis, prognosis and treatment plan. The utilization of demonstrative documentation in diagnostic testing to visualize pathology in the trauma and non-trauma case. Cleveland University – Kansas City, Academy of Chiropractic post-Doctoral Division, Long Island, NY, 2022

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. 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, 2022

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. 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, 2022

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. 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, 2022

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. 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, 2022

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. 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, 2022

2022 Trends in Spinal Healthcare, *Analyzing evidenced-based spinal healthcare trends in both utilization and necessity and understanding the marketplace. The use of evidenced-based demonstrative documentation in reporting treatment pathways in triaging spinal pathobiomechanics.* 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, 2021

MRI Spine Clinical Case Grand Rounds, *Clinical case review of MRI's including sagittal, axial, T1, T2, STIR, and proton density sequences. Identified will be the vertebrae, 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. Learn how to collaborate effectively with radiologists, neuroradiologists, and neurosurgeons on the clinical findings.* 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, 2021

Chiropractic vs. Physical Therapy vs. Medical Case Management and Outcomes, *Analysing evidence-based outcomes in triaging non-anatomical lesions. The analysis of neuro-biomechanical pathological lesions defines primary spinal lesions and removes the dogma of non-specific back pain. Managing collaborative relationships with medical primary providers and specialists in clinical practice.* 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, 2021

MSK Extremity Radiological Interpretation, *Utilizing both MRI and x-ray in identifying via x-ray and advanced imaging extremity instabilities from ligamentous, osseous or neoplastic derangement.* 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, 2021

Demonstrative Narrative and Evaluation and Management Report Writing, *Effectively creating demonstrative medical-legal documentation and meeting the needs of the courts, and making your "4-Corner" (narrative) report to build your reputation as an evidence-based provider. The step-by-step minutiae of building a report, accomplishing report writing timely and effectively by understanding the regulatory and administrative rules. Learn how to educate the lawyer on bodily injury through evidence-based demonstrative reporting.* 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, 2021

Ligament/Connective Tissue Physiology and 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, 2021

Stroke Evaluation and Risk Factors in the Chiropractic Practice, *Diagnosing, triaging, and documenting headaches, migraines, and vascular incidents (stroke) in the primary provider's office. Imaging protocols based upon history and clinical presentation will be presented, along with analyzing imaging findings in determining the etiology. There will be an extensive question and answer session following the instructional presentation.* 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, 2021

Age-Dating Herniated Discs and Trauma, *Age dating herniated discs and trauma is a critical skill for an expert in spine. It combines the clinical skills of interpreting X-ray, MRI, and other imaging modalities with a clinician's understanding of joint pathology. This level of expertise is critical when collaborated with other physicians or working in the medical-legal environment as an expert. Age dating pathology is also central to creating a prognosis on your patient's recovery and must be evidence-based in rationale.* 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, 2021

Clinical Grand Rounds in Spinal Biomechanics, *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.* 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, 2021

Neurosurgical Grand Rounds, A clinical discussion of collaborating with neurosurgeons on spinal cord and spinal nerve root co-morbidities. Triaging cases with herniated, protruded, extruded, fragments discs and differentially diagnosing tethered cord, syringomyelia, traumatic Schmorl's Nodes, Myelomalacia, spinal cord edema, vacuum disc and other intra, and extra-dural lesions. 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, 2021

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.* 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, 2021

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.* 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, 2021

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.* 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, 2021

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.* 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, 2021

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-Electronystagmography (V-ENG) interpretation, protocols and clinical indications for the trauma patient.* 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, 2021

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. 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, 2021

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 kinesio pathology, myopathology, neuropathology, and pathophysiology in both a functional and structural paradigm. 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, 2021

Documentation, Demonstrative and Compliance, Elements of Evaluation and Management codes 99202-99203-99204-99205, inclusive of complexity of management and time components. Demonstrative documentation of spinal-related pain generators; spinal cord, thecal sac, myelomalacia, spinal nerve root insult, connective tissue, recurrent meningeal nerves. 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, 2021

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, Cleveland University – Kansas City Long Island, NY, 2021

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, Cleveland University – Kansas City Long Island, NY, 2021

MRI Spine Interpretation, Clinical case review of MRI's including sagittal, axial, T1, T2, STIR, and proton density sequences. Identified will be the vertebrae, 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, Cleveland University – Kansas City Long Island, NY, 2021

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, 2021

NY, 2021

SELECTED LEGAL EDUCATION & INSTRUCTING

Instructor, Age Dating Disc Herniations – Objective Finding for Spinal Trauma, Course #: 174272248, State Bar of Texas, Minimum Continuing Legal Education, Austin TX, 2025

SELECTED MEMBERSHIPS

Nebraska Chiropractic Physicians Association, Member, 2022 – Present

Academy of Chiropractic, Member, 2021 – Present

International Federation of Chiropractors and Organizations (IFCO), Member, 2018 – Present

International Chiropractic Pediatric Association (ICPA), Member, 2017 – Present

International Chiropractors Association (ICA), Member, 2016 - Present

SELECTED COMMUNITY SERVICE

Friendship Home, Lincoln, Nebraska, 2021 - 2021

People City Mission, Lincoln, Nebraska, 2019 - Present