

William J. O'Donnell, DC, DAAML

107 SW 2nd Street, Corvallis, OR 97333

Phone: 541.363.3100

Fax: 866.572.0412

ODonnellChiro@cs.com

www.VertebrataChiropractic.com

SELECTED OCCUPATIONAL HISTORY

Clinic Director, Chiropractor, Vertebrata Chiropractic, PC, Corvallis, OR, 2010 - Present

Clinic Director, Chiropractor, TravelingChiropractor.com, Various, 2004 - Present

Chiropractor, Chiropractic Physicians, Kent, WA, 2003 - 2004

Clinic Director, Chiropractor, O'Donnell Chiropractic, Seattle, WA, 2002 - 2010

Chiropractor, Elaj Medical Center - Spine and Joint Unit, Riyadh, 2000 - 2002

EDUCATION AND LICENSURE

Doctor of Chiropractic, Licensed in the State of Oregon, License #3954, 2010 - Present

Doctor of Chiropractic, Licensed in the State of New Jersey, License #38MC00664000, 2006 - 2011

Doctor of Chiropractic, Licensed in the State of Washington, License #CH000034170, 2001 - 2010

Doctorate of Chiropractic, New York Chiropractic College, Seneca Falls, NY, 2000

Internship, Shotwell Chiropractic, Seattle, WA, 2000

National Board of Chiropractic Examiners, Part I, 1999

National Board of Chiropractic Examiners, Part II, 1999

National Board of Chiropractic Examiners, Part III, 2000

National Board of Chiropractic Examiners, Part IV, 2000

National Board of Chiropractic Examiners, Physiotherapy, 2000

Bachelor of Science in Human Biology, Excelsior College, Albany, NY, 2005

Associate of Science in Liberal Arts, SUNY Mohawk, Utica, NY, 1996

SELECTED POST-GRADUATE EDUCATION, CERTIFICATIONS AND DIPLOMATES

Auto Collision Differential Assessment, Trauma as it relates to the car accident patient including post concussion syndrome, mild traumatic brain injury and brainstem related injury, post traumatic stress disorder, cranial nerve trauma, temporomandibular joint pathology, and post-traumatic fibromyalgia. Focus on neurology and neural interconnections as it relates to identification and differential diagnosis of specific lesions. Daniel P. Dock, DC, DABCO, DACAN, FACO, Portland, OR, 2012

Whiplash Injuries, Whiplash history, objective exam findings, causation, clinical correlation, and care plans. Correlation of causality to bodily injury and its implications for appropriate diagnosis and treatment. Research presentations demonstrating evidence based reasoning for care. Daniel P. Dock, DC, DABCO, DACAN, FACO, Portland, OR, 2012

Diplomate – American Academy of Medical Legal Professionals – 2011

Advancing Pain Management in Oregon, Assessment of nociceptive, neuropathic, and idiopathic pains, as well as options for treatment of various pain types including pharmacological therapy, manual therapies, alternative therapies, and psychological therapies. The Oregon Pain Management Commission and the Oregon Department of Human Services, Salem, OR, 2011

Physical Rehabilitation Strategies for Patients with Severe Neck and Back Pain, Exploration and understanding a perspective on movement/stress model of tissue recovery and pain centralization strategies. Identification of core exercises to be employed in patients with severe back pain. Additionally, focus on early interventions for cervical spine pain rehabilitation is given with identification of specific isometric activities and other spine-sparing strategies. University of Western States, Portland, OR, 2011

Muscle Energy Technique, Review of the history of Muscle Energy Technique (MET) and how it is thought to work. Identifying general uses and specific issues relating to using the technique when treating a patient with acute spinal pain. Indications and contraindications for the use of MET and the common errors of its application. University of Western States, Portland, OR, 2011

Manual Therapy Modification Strategies for Severe Neck and Back Pain, Contemporary strategies for the management of patients with severe neck and back pain. Mobilization and low velocity techniques, muscle energy techniques, palpation as a treatment, disc unloading, long-axis distraction, soft-tissue and stretching strategies, non-torque side-posture techniques and other approaches. University of Western States, Portland, OR, 2011

Psychological Assessment and Management of Pain, 6 "Yellow Flags" indicative of significant psychological substrate to the presenting pain complaint. Constructive, health-orientated

interviewing around a patient's concerns of chronic pain. Review of the basic diagnostic criteria of Somatoform Disorders and when to recommend a psychological consult. University of Western States, Portland, OR, 2011

Electrodiagnostic Assessment of Spinal Cord Injury, Practical application and clinical implication of various electrodiagnostic modalities as they relate to spinal cord injury, myelopathy, radiculopathy and peripheral neuropathy. Study of M-wave, H-reflex, EMG, SEP, and transcranial electromagnetic stimulation as it relates to injury diagnosis. American Academy of Spine Physicians, Logan College of Chiropractic, Chesterfield, MO, 2011

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. CMCS Post Doctoral Division, New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, Long Island, NY, 2011

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. CMCS Post Doctoral Division, New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, Long Island, NY, 2011

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. CMCS Post Doctoral Division, New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, Long Island, NY, 2011

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. CMCS Post Doctoral Division, New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, Long Island, NY, 2011

Clinical Biomechanics of Spine Trauma (Part III), Biomechanics of spinal trauma as it pertains to common sports injuries. Focus on spinal fractures and dislocation as well as radiographic, CT, MRI and bone scan presentation leading towards diplomate status with the AASP. American Academy of Spine Physicians, Logan College of Chiropractic, Chesterfield, MO, 2011

Clinical Biomechanics of Spine Trauma (Part II), Biomechanics of spinal trauma as it pertains to common motor vehicular injuries. Primary focus on ligamentous and discal injury as well as radiographic and MRI presentation of these injuries leading towards diplomate status with the

AASP. American Academy of Spine Physicians, Logan College of Chiropractic, Chesterfield, MO, 2011

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.* New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, AACME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences and CMCS Post Doctoral Division, Buffalo, NY, 2011

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.* New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, AACME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences and CMCS Post Doctoral Division, Buffalo, NY, 2011

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.* New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, AACME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences and CMCS Post Doctoral Division, Buffalo, NY, 2011

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.* New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, AACME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences and CMCS Post Doctoral Division, Buffalo, NY, 2011

MRI Methodology of Analysis, *MRI interpretation sequencing of the cervical, thoracic and lumbar spine inclusive of T1, T2, STIR and 3D gradient studies to ensure the accurate diagnosis of the region visualized.* New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, AACME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences and CMCS Post Doctoral Division, Buffalo, NY, 2011

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.* New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, AACME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences and CMCS Post Doctoral Division, Buffalo, NY, 2011

Proficiency in Practice, *Proper documentation of patient charts, maintenance of patient confidentiality, importance of informed consent, consequences of altering chart notes and improving communication skills. Also, an overview to the application specific to the human nervous system of the direct relationship of the mind, cognition, and gait as it relates to proprioception.* Logan College of Chiropractic, Chesterfield, MO, 2011

Documenting Clinically Correlated Bodily Injury to Causality, *Understanding the necessity for accurate documentation, diagnosis and clinical correlation to the injury when reporting injuries in the medical-legal community. Documenting the kinesiopathology, myopathology, neuropathology, and pathophysiology in both a functional and structural paradigm.* CMCS Post Doctoral Division, New York Chiropractic Council, New York State Education Department, Board for Chiropractic, Long Island, NY, 2011

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.* CMCS Post Doctoral Division, New York Chiropractic Council, New York State Education Department, Board for Chiropractic, Long Island, NY, 2011

Neurodiagnostic Testing Protocols, Physiology and Indications for the Trauma Patient, *Electromyography (EMG), Nerve Conduction Velocity (NCV), Somato Sensory Evoked Potential (SSEP), Visual Evoked Potential (VEP), Brain Stem Auditory Evoked Potential (BAER) and Visual-Electronystagmosgraphy (V-ENG) interpretation, protocols and clinical indications for the trauma patient.* CMCS Post Doctoral Division, New York Chiropractic Council, New York State Education Department, Board for Chiropractic, Long Island, NY, 2011

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.* CMCS Post Doctoral Division, New York Chiropractic Council, New York State Education Department Board for Chiropractic, Long Island, NY, 2011

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.* CMCS Post Doctoral Division, New York Chiropractic Council, New York State Education Department Board for Chiropractic, Long Island, NY, 2011

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.* CMCS Post Doctoral Division, New York Chiropractic Council, New York State Education Department Board for Chiropractic, Long Island, NY, 2011

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.* CMCS Post Doctoral Division, New York Chiropractic Council, New York State Department of Education Board for Chiropractic, Long Island, NY, 2011

Evidence Based Outcomes Management, *Identification of outcomes management tools appropriate for curative chiropractic treatment including both subjective or patient-driven information as well as objective or provider-driven information with presentation of supporting evidence, methods and protocols for use including documentation carrying substance, offering specific treatment approaches, and proving the need for ongoing care.* Oregon Chiropractic Association, Portland, OR, 2010

Over the Counter Medications, *Clinical implication in presentation, diagnosis, and management of patients taking over the counter (OTC) medications as well as common side effects, common interactions, and concurrent supplementation for patient management including indications, interactions, and contraindications to recommendation of OTC medications.* Oregon Board of Chiropractic Examiners, Oregon Chiropractic Association, Western States Chiropractic College, Portland, OR, 2010

Proctology and Minor Surgery, *Evaluation and management of proctological conditions as well as surgical techniques and intervention for common cutaneous and subcutaneous conditions including setup and management of the chiropractic surgical practice in Oregon.* Western States Chiropractic College, Portland, OR, 2009

Certification in Manipulation Under Anesthesia, Boulevard Surgery Center, Texas Chiropractic College, New York, NY, 2009

Clinical Biomechanics of Spine Trauma (Part I), *Regional and individual joint motion as pertaining to evaluation, diagnosis, and management of trauma of the spinal osseous, muscular, and ligamentous structures of the spine leading towards diplomate status with the AASP.* American Academy of Spine Physicians, Logan College of Chiropractic, Chesterfield, MO, 2009

Clinical Biomechanics: Vertebrae, Joints and Muscles (Part I), *Normal biomechanics as well as evaluation including physical exam, radiographic interpretation, diagnostics, and management of biomechanical disorders for the musculoskeletal practitioner leading towards diplomate status with the AASP.* American Academy of Spine Physicians, Logan College of Chiropractic, Chesterfield, MO, 2009

Evaluating Foot Pain in Elderly Patients, *Visual examination, foot manipulation, and causes of foot pain in the elderly patient including ROM, vascular, dermatologic, endocrine, and neurological evaluations.* Accreditation Council for Continuing Education, Chicago, IL, 2008

Cases in CAM: Melatonin for a Natural Sleep: What's the Evidence?, *Common uses, formulations, doses, evidence supporting indications for use, and potential adverse effects of melatonin*. Accreditation Council for Continuing Education, Chicago, IL, 2008

Chiropractic TeleSeminar Endocrine Systems 302, *Application of diagnostic procedures in the chiropractic practice for evaluation of common endocrine disorders*. University of Bridgeport College of Chiropractic, Bridgeport, CT, 2008

A 33-year-old Woman with Sudden-Onset Severe Headache and Vomiting, *Common concepts, situations, and presentations illustrating real-world conditions and situations for recognition of typical presentation and treatment of cerebral venous thrombosis*. Accreditation Council for Continuing Education, Chicago, IL, 2008

Sports Medicine: Peripheral Nerve Injuries in Athletes (Part IV), *Lower extremity peripheral nerve injury presentation, diagnosis, and prognosis including sciatic, popliteal, anterior tibial, and peroneal nerve insults in the athlete leading towards diplomate status with the AASP*. American Academy of Spine Physicians, Logan College of Chiropractic, Chesterfield, MO, 2007

Sports Medicine: Peripheral Nerve Injuries in Athletes (Part III), *Upper extremity peripheral nerve injury presentation, diagnosis, and prognosis including long thoracic nerve, axillary nerve, musculocutaneous, radial, median and ulnar nerve injuries in the athlete leading towards diplomate status with the AASP*. American Academy of Spine Physicians, Logan College of Chiropractic, Chesterfield, MO, 2007

Sports Medicine: Peripheral Nerve Injuries in Athletes (Part II), *Brachial Plexus injuries of varying severities including neuropraxic, axonometric, and neurotmetic insults such as Erb-Duchennes Palsy, Klumpke's Palsy, and 'Burners/Stingers' with focus on treatment and prognosis for these injuries in the athlete leading towards diplomate status with the AASP*. American Academy of Spine Physicians, Logan College of Chiropractic, Chesterfield, MO, 2007

WACS: Antioxidant Vitamins a Bust at CV Protection, *Presentation and discussion of methods and results of studies utilizing vitamin E, vitamin C, and beta-carotene supplements and their long term effects in cardiac outcomes*. Accreditation Council for Continuing Education, Chicago, IL, 2007

Advances in the Management of Urinary Stone Disease, *Recent developments in diagnosis, innovative approaches in laparoscopic and endoscopic treatment, data for treatment of nephrolithiasis, and incorporation of advances in the prevention of urolithiasis*. Accreditation Council for Continuing Education, Chicago, IL, 2006

Omega-3 Fatty Acids: Recommendations for Therapeutics and Prevention, *Clinical outcomes influenced, benefits and requirements during pregnancy and lactation, mechanisms of cardiovascular protection, role in the prevention of psychiatric illness, elements of the metabolic syndrome that may be improved, and inflammatory diseases likely to improve with supplementation of omega-3 fatty acids*. Accreditation Council for Continuing Education, Chicago, IL, 2005

Sports Medicine: Peripheral Nerve Injuries in Athletes (Part I), *Mechanism of injury, evaluation, diagnosis, and interpretation of diagnostic testing for both common and uncommon peripheral nerve injuries including lesions of the brachial and lumbar plexi as well as acute and chronic peripheral neuropathies in the athlete leading towards diplomate status with the AASP.* American Academy of Spine Physicians, Logan College of Chiropractic, Chesterfield, MO, 2005

Physicians Should Treat All Cardiovascular Risk, Not Just Metabolic Syndrome, *Enhancing patient care for metabolic syndrome with utility of the concept of metabolic syndrome in predicting risk of CV disease and patient treatment.* Accreditation Council for Continuing Education, Chicago, IL, 2005

TeleSeminar Xray 301, *Common findings of osteoporosis in radiographic imaging with discussion of implications for the chiropractic practice.* University of Bridgeport College of Chiropractic, Bridgeport, CT, 2005

Group Exercise May Be Better Than Individual Manipulative Therapy for Chronic Low Back Pain, *Cost-effectiveness of various forms of spine mobilization and stabilization versus exercise therapy.* Accreditation Council for Continuing Education, Chicago, IL 2005

Degenerative Diseases of the Spine (Part II), *Focus on degenerative diseases of the cervical, thoracic, and lumbar spines including canal stenosis, ligamentum flavum hypertrophy, neuroforaminal stenosis, disc bulging, and hypermobility leading towards diplomate status with the AASP.* American Academy of Spine Physicians, Logan College of Chiropractic, Chesterfield, MO, 2005

Degenerative Diseases of the Spine (Part I), *Neuroimaging of degenerative diseases of the spine addressing history and technology as well as clinical applications to the head, neck and spine leading towards diplomate status with the AASP.* American Academy of Spine Physicians, Logan College of Chiropractic, Chesterfield, MO, 2005

Basic Movement Assessment, Testing, and Re-Activation, *Gait analysis, evaluation protocols for lower extremity and particularly of pes planus, and rehabilitation via exercise and orthotic therapy.* Washington State Chiropractic Association, Seattle, WA, 2004

Posture Analysis, Janda's Profiles & Effective Stretches and Mobilizations, *Physiotherapeutic evaluation and management with focus on postural analysis, post isometric relaxation, myofascial release, and post facilitated stretching as per Janda protocols.* Washington State Chiropractic Association, Seattle, WA, 2004

Lower Extremity Trauma, *Traumatic disorders of the lower extremity including fracture, dislocation, and soft tissue injuries with emphasis on diagnostic orthopedics and treatment options the traumatically injured patient in acute, subacute and chronic stages of injury leading to qualification for diplomate of the American Board of Chiropractic Orthopedists.* Western States Chiropractic College, Portland, OR, 2004

Upper Extremity Trauma, *Traumatic disorders of the upper extremity including fracture, dislocation, and soft tissue injuries with emphasis on diagnostic orthopedics and treatment options the traumatically injured patient in acute, subacute and chronic stages of injury leading to qualification for diplomate of the American Board of Chiropractic Orthopedists.* Western States Chiropractic College, Portland, OR, 2004

Providing Care for Professional Athletes, *Medical-legal implications specifically of malpractice liability as it related to care of professional athletes and high wage earners as well as marketing techniques focused on becoming the provider for professional level athletic care.* Washington State Chiropractic Association, Seattle, WA, 2003

Low Back Pain: Four Case Scenarios for Treatment, *Clinical presentation and management of common low back conditions including disc herniation, cauda equina syndrome secondary to burst fracture, metastatic bone disease of the lumbar spine, and sacroiliac joint sprain.* Valley Medical Center, Renton, WA, 2003

Lumbar and Pelvic Trauma, *Traumatic disorders of the spine and pelvis including fracture, dislocation, and soft tissue injuries with emphasis on diagnostic orthopedics and treatment options the traumatically injured patient in acute, subacute and chronic stages of injury leading to qualification for diplomate of the American Board of Chiropractic Orthopedists.* Western States Chiropractic College, Portland, OR, 2003

Innovative Perioperative Management in Orthopaedic Surgery: Maximizing Functional Outcomes, *Nonsurgical treatment of patients with sports injuries, principles and practice of minimally invasive multi-incision total joint replacement of the hip, patient assessment procedures, options for nonsurgical management of pain/inflammation arising from sports injuries, and analgesic efficacy and safety of various drugs in controlling pain associated with orthopedic surgery.* Council for Continuing Education, Chicago, IL, 2003

Abdominal and Thoracic Trauma, *Traumatic disorders of the lower extremity including fracture, dislocation, and internal soft tissue injuries with emphasis on diagnostic orthopedics and treatment options the traumatically injured patient in acute, subacute and chronic stages of injury leading to qualification for diplomate of the American Board of Chiropractic Orthopedists.* Western States Chiropractic College, Portland, OR, 2003

Head and Neck Trauma, *Traumatic disorders of the head and neck including fracture, dislocation, and soft tissue injuries with emphasis on diagnostic orthopedics and treatment options the traumatically injured patient in acute, subacute and chronic stages of injury leading to qualification for diplomate of the American Board of Chiropractic Orthopedists.* Western States Chiropractic College, Portland, OR, 2003

Introduction to Biomechanical Trauma, *Traumatic disorders overview including biochemistry, physiopathology, radiography, and treatment of generalized disorders including fracture, dislocation, and soft tissue injuries with emphasis on diagnostic orthopedics and treatment options the traumatically injured patient in acute, subacute and chronic stages of injury leading*

to qualification for diplomate of the American Board of Chiropractic Orthopedists. Western States Chiropractic College, Portland, OR, 2003

Radiographic Assessment, Plain film radiography, computed tomography (CT), magnetic resonance imaging(MRI), and radionucleotide bone scan interpretation and protocols as it relates to musculoskeletal evaluation, diagnosis, prognosis, and treatment plan leading to qualification for diplomate of the American Board of Chiropractic Orthopedists. Western States Chiropractic College, Portland, OR, 2003

Multidisciplinary Approach to the TMJ, Traumatic and non-traumatic causes of as well as medical, dental and chiropractic diagnosis, management and outcomes associated with temporomandibular joint syndrome. Washington State Chiropractic Association, Seattle, WA, 2003

Manual Therapy, Indications and protocols for manual therapy techniques including chiropractic manipulative therapy, Cox Flexion Distraction, myofascial release techniques, NIMMO protocol. In addition physiotherapeutic exercise, neuromuscular reeducation, manual rehabilitation procedures as they pertain to musculoskeletal prognosis, and treatment plan leading to qualification for diplomate of the American Board of Chiropractic Orthopedists. Western States Chiropractic College, Portland, OR, 2003

Laboratory Assessment, Indications, protocols, and interpretation of phlebotomy, hematological and urinalysis studies as they relate to musculoskeletal evaluation, diagnosis, prognosis, and treatment plan leading to qualification for diplomate of the American Board of Chiropractic Orthopedists. Western States Chiropractic College, Portland, OR, 2003

Turner Syndrome: Toward Early Recognition and Improved Outcome, Genetics and pathophysiology, characteristics, importance of evaluating a patient's growth, and benefits of early referral, diagnosis, and treatment. Lilly, University of California Irvine College of Medicine, Orange, CA, 2003

Physical Assessment, History taking, visual diagnosis, palpatory assessment, percussive evaluation, range of motion assessment, orthopedic testing, and neurological evaluation and protocols as well as the interpretation of the physical exam studies as it pertains to evaluation, diagnosis, prognosis, and treatment plan with musculoskeletal emphasis leading to qualification for diplomate of the American Board of Chiropractic Orthopedists. Western States Chiropractic College, Portland, OR, 2003

Colossus Perspectives, Understanding Colossus implementation in managed care and personal injury with presentation of coding and case studies highlighting prevention of common and uncommon coding and documentation errors resulting in appropriate and timely reimbursement for rendered services. Washington State Chiropractic Association, Auburn, WA, 2003

Being a Lead health Care Provider and What You Need to Know, Management techniques of the chiropractic physician as primary care provider, portal of entry physician, and contrasting this

with chiropractic as a neuromusculoskeletal specialist. Washington State Chiropractic Association, Seattle, WA, 2003

Preexisting Conditions and What You Need to Know, *Pre-existing conditions as they relate to the trauma and subsequent treatment of motor vehicular injury with documentation, evaluation, and management and outcomes assessment.* Washington State Chiropractic Association, Seattle, WA, 2003

Orthopedic Management of Sports Injuries, *Evaluation, diagnosis and management focusing on taping, casting, and common surgical intervention for sports injuries.* Washington State Chiropractic Association, Seattle, WA, 2002

HIPAA Solutions Seminar, *Explanation of implications for HIPAA for the sole practitioner, multiple practitioner, and multidisciplinary offices as well as suggested of office procedures. Avoidance of common infractions and HIPAA violations.* Washington State Chiropractic Association, Seattle, WA, 2002

The Pain-Depression Conundrum: Bridging the Body and Mind, *Physiologic links between treatment protocols and clinical strategies for the management of, and physical symptoms seen in association with depression and anxiety disorders. Impact of depression on chronic pain, neurochemical links between, and appropriate treatments for patients with comorbid pain and depression.* Lilly, American Pain Society, Accreditation Council for Continuing Education, Chicago, IL, 2002

Chiropractic Physical Therapy 101, *Electrophysiologic response of spinal dorsal horn neurons elicited by electrical peripheral nerve stimulation, and investigation of electrical stimulation of peripheral nerves causing inhibition of pain at the spinal cord level and its clinical application by stimulation cutaneous afferent nerves treating back pain, neck pain extremity pain and numbness.* University of Bridgeport College of Chiropractic, Bridgeport, CT, 2002

The Evolution of Biologic DMARD Therapy in Rheumatoid Arthritis Management, *The process behind the scientific discovery of TNF and TNF antagonists, role of TNF, current treatments, benefits and risks of traditional DMARDs and biologic DMARDs used in treatment, future treatments for rheumatoid arthritis that are available by advances in technology.* Accreditation Council for Continuing Education, Chicago, IL, 2002

New Insights into COX-2 Specific Inhibition for Pain and Arthritis Therapy, *Etiology of pain, new approaches in pre- and postoperative analgesia, gastrointestinal safety and tolerability, cardiovascular and renal safety profiles of conventional NSAIDs and COX-2 specific inhibitors, and use of these agents in patients taking low-dose aspirin.* Accreditation Council for Continuing Education, Chicago, IL, 2002

Biologic Therapies for Rheumatoid Arthritis: Navigating the Changing Treatment Paradigm, *Role of inflammatory mediators in the biology of erosive disease, efficacy and safety of combination therapy and monotherapy for RA, as well as the relative merits of aggressive early RA therapy, ideal therapy for RA with respect to safety and efficacy, and comparison of current*

therapies to this ideal. Discovery Institute of Medical Education, Accreditation Council for Continuing Education, Chicago, IL, 2002

A New Era in Pain Management With COX-2 Specific Inhibitors, Role of the COX-2 isoenzyme in the mediation of pain and inflammation, use of COX-2 specific inhibitors in the management of pain and inflammation in surgery, soft-tissue injury, and arthritis, safety profiles of conventional NSAIDs, COX-2 specific inhibitors, and other analgesics, and use of bone graft substitutes. Rosalind Franklin University of Medicine & Science, Accreditation Council for Continuing Education, Chicago, IL, 2002

NSAIDs, Coxibs, and Cardio-Renal Physiology: A Mechanism-Based Evaluation, Role of prostaglandins and cyclooxygenase in physiologic and pathophysiologic processes, rationale for developing specific COX-2 inhibitors and the evidence for their differential GI-sparing effects, effects of nonselective NSAIDs and coxibs on cardio-renal physiology, and cardiovascular risk factors in patients with arthritis. Accreditation Council for Continuing Education, Chicago, IL, 2002

New Bone Graft Techniques and Applications in the Spine, Methods of bone grafting, distinguishing differences in osteoconductive properties and composition, developments in the areas of research for bone morphogenetic proteins, specifically recombinant human bone morphogenetic protein-2(rhBMP-2), clinical trials that have involved rhBMP-2, assessing efficacy in fusion outcomes after lumbar spine surgery, and adverse events associated with anterior lumbar interbody fusion. Accreditation Council for Continuing Education, Chicago, IL, 2002

Effective Therapeutic Options for Hip Fractures in Osteoporosis, Demographic and clinical features of osteoporotic hip fractures, role of treatments such as calcium/vitamin D, calcitonin, bisphosphonates, raloxifene and hormone replacement therapy in the prevention and/or treatment of osteoporotic hip fractures, role of bisphosphonates in nonvertebral fractures in postmenopausal women. Discovery Institute of Medical Education, Accreditation Council for Continuing Education, Chicago, IL, 2002

The Role of Biologics in Optimizing RA Treatment: A Return to Monotherapy?, Relation between efficacy and safety in combination therapy and monotherapy for RA, as well as the relative merits of aggressive early RA therapy and the characteristics of an ideal therapy for rheumatoid arthritis with respect to safety and efficacy, while discussing how current therapies compare to this ideal. Discovery Institute of Medical Education, Accreditation Council for Continuing Education, Chicago, IL, 2002

Inhibiting Structural Damage in Rheumatoid Arthritis With Anti-TNF-Alpha Therapy, Benefits of establishing a new strategy for the early aggressive treatment, identification of patients who would benefit from anti-TNF-alpha therapy, characteristics of anti-TNF-alpha agents and the potential impact on efficacy and safety profiles, and future utility of anti-TNF-alpha agents in other autoimmune diseases. Accreditation Council for Continuing Education, Chicago, IL, 2002

The New Science of Rheumatoid Arthritis, *Treatment, importance of the immune system, changing current approaches to the treatment of immune-mediated diseases, genetic analyses and environmental factors influencing initiation, persistence, and severity, and novel agents in development preserving function and preventing further joint destruction in patients with rheumatoid arthritis.* Accreditation Council for Continuing Education, Chicago, IL, 2002

Structural Damage in Rheumatoid Arthritis, *Sharp x-ray scoring and the van der Heijde method, disease progression as it relates to imaging techniques, anti-alpha therapy, evaluating radiographic trials, and impact of patient disability relative to radiographic evaluation and quality of life.* University of Arizona College of Medicine at the Arizona Health Sciences Center, Accreditation Council for Continuing Education, Chicago, IL, 2002

OA Today and Tomorrow: Maintaining Function with Early Intervention, *Non-operative treatment options for management, early interventional treatments, developments in imaging technology that may enable early diagnosis and treatment of osteoarthritis, and new/future biotechnological therapies for the repair of joint damage.* Northeastern Ohio Universities College of Medicine, Accreditation Council for Continuing Education, Chicago, IL, 2002

Osteoporosis: Consider the Outcomes, *Understanding the rapid progression of osteoporosis and identifying approaches to management, explain fracture risk reduction and the benefits of fracture risk management, and identify patients who have an increased fracture risk and determine appropriate and effective treatment.* Accreditation Council for Continuing Education, Chicago, IL, 2002

Diagnosis and Treatment for Osteoporosis: Current Status and Expectations for the New Millennium, *Benefits and limits of bone mineral density measurements, antifracture efficacy of currently available treatments for osteoporosis, and data on new formulations for existing osteoporosis treatments and emerging therapies.* Merck, Accreditation Council for Continuing Education, Chicago, IL, 2001

Spine Associations Debate New Research and Technology, *Diagnosis and management of bone and joint disorders, arthritis and degenerative diseases, presentation of surgical techniques and treatment options, management of musculoskeletal injuries, indications and complications in arthroscopy, arthroplasty, and other surgical interventions.* Accreditation Council for Continuing Education, Chicago, IL, 2001

Electrodiagnostics, *Procedures and interpretation of electrodiagnostic testing including, SEMG, NCV, NEMG, H-reflex, F-waves, and transcranial cortical electromagnetic stimulation.* New York Chiropractic College, Seneca Falls, NY, 2001

Motion Palpation and Adjustment Workshop, *Management protocols for various patients including pediatric, elderly, female, and athletes through chiropractic. Hands-on training of the Motion Palpation Technique, Gonstead technique, as well as Diversified Chiropractic Manipulation.* Motion Palpation Institute, New York Chiropractic College, Seneca Falls, NY, 2000

Activator Methods Technique, *Activator basic methods instruction, indications, and protocols*.
New York Chiropractic College, Seneca Falls, NY, 2000

SELECTED MEMBERSHIPS

American Academy of Medical Legal Professionals, Member 2011 – Present

American Chiropractic Association, Member 2011 - Present

Oregon Chiropractic Association, Member 2009 - Present

American Academy of Spine Physicians, Member, 2004 - Present

Washington State Chiropractic Association, Member, 2002 - 2009

Washington State Chiropractic Association, Professional Development Committee, 2003 - 2009

American Mensa, Member, 2002 - Present

SELECTED HONORS AND AWARDS

Volunteer of the Year, Washington State Chiropractic Association, 2004

Frank DiGiacomo Technique Award, New York Chiropractic College, 2000

Lorraine Welch Award, New York Chiropractic College, 2000

Student Service Award, New York Chiropractic College, 2000

Distinguished Service Award, New York Chiropractic College, 2000