14th Biennial WFC Congress
24th Annual ACC Research Agenda Conference
2017 National Chiropractic Leadership Conference

DRAFT

ACADEMIC PROGRAM

PREMIER SPONSORS:

Program is conditional upon participant acceptance and is subject to change without notice
Welcome to DC2017

The World Federation of Chiropractic (WFC), the Association of Chiropractic Colleges (ACC) and the American Chiropractic Association (ACA) warmly welcome you to DC2017: IMPACT SPINAL HEALTH.

This exceptional event, which brings together our Biennial Congress, ACC Research Agenda Conference and the National Chiropractic Leadership Conference, is the first of its kind and combines the very best that chiropractic continuing education has to offer.

With outstanding keynote speakers, inspiring plenary presentations and stimulating workshops, DC2017 has something for everyone. It is also the premier chiropractic scientific meeting of the year and will feature multi-track platform presentations of original research as well as a dedicated poster exhibition.

Held in the United States capital, DC2017 will offer delegates the opportunity to experience Washington D.C. by night, taking in the illuminated Capitol building, Lincoln Memorial and the White House as well as many other sights.

DC2017 will conclude with a glittering banquet and awards evening, where the Hilton will provide the backdrop to an evening of celebration, fine dining and friendship.

DC2017 really is the unmissable event of 2017. Demand for attendance is already strong so don't delay; register now at www.dc2017.org.
A Special Thank You To Our Sponsors

Without the generosity of sponsors, DC2017 would not have happened. The World Federation of Chiropractic, Association of Chiropractic Colleges and the American Chiropractic Association are extremely grateful to the organizations and individuals who have got behind this unique and historic event to lend support and help with promotion.

In particular, we acknowledge and express particular gratitude to our premier sponsors, Foot Levelers, NCMIC, and Standard Process, whose financial contribution and steadfast support throughout have been unprecedented.

Serving the chiropractic profession for over 6 decades, Foot Levelers is the world's leading provider of individually designed functional orthotics, custom orthotic flip-flops, Shoethotics® and Sandalthotics®.

NCMIC is trusted by Doctors of Chiropractic for malpractice insurance and so much more. Their coverage helps protect you and your personal assets, your practice and your patients.

Standard Process is the visionary leader in whole food nutrient solutions, providing systems thinking to holistic nutrition that empowers practitioners to transform lives.
What are the 2 biggest obstacles to ending her chronic back pain?

Here's a hint: She's standing on them.

Ask Your Patient:
- Do you stand or walk on hard surfaces for more than 4 hours a day?
- Do you participate in sports?
- Have you ever injured your knee, back or neck?
- Do your shoes wear unevenly?
- Do your joints hurt while standing, walking, or running?
- Do you have one leg that is shorter than the other?
- Do you have knock knees or bow legs?
- Do you have bunions, corns, flat feet, etc.?
- Do your feet ‘toe out’ when you’re walking?

If the answer to any of these questions is yes, your patient needs custom-made functional orthotics by Foot Levelers.

800.553.4860
FootLevelers.com
Paul Ryan is the 54th and current Speaker of the U.S. House of Representatives. Ryan is a member of the Republican Party who has served as the U.S. Representative for Wisconsin's 1st Congressional District since 1999.

First entering the House of Representatives at the age of 28, Ryan is a popular figure, never winning less than 55% of the vote in 8 successive U.S. congressional re-elections.

In 2012, Ryan, 46, was chosen as the Vice-Presidential candidate to Senator Mitt Romney in the U.S election.

Congressman Ryan, served as Chairman of the U.S. House Ways and Means Committee and also served on its Subcommittee on Health. He is known as a unifier, bringing together various factions to achieve a common goal.

Ryan is a strong advocate of health care reform. He has spoken strongly in favour of quality health care for women and patient-centered care, pledging to strengthen health care security and empower patients with control over their care.

Ryan became Speaker of the House in October 2015.

Ryan is a strong advocate of health and wellness. He follows an intense crossfit training program. Married with 3 children, he lives in Janesville, Wisconsin.

Congressman Ryan's keynote message will be delivered on Thursday, March 16.
Susan Dentzer is one of America's foremost health policy experts. She leads the Network for Excellence in Health Innovation, with offices in Washington D.C., Cambridge MA, and San Francisco.

A longtime journalist, she has been an on-air analyst on health issues with the PBS NewsHour and a regular commentator on health policy for National Public Radio. She wrote and hosted the 2015 PBS documentary, "Reinventing American Healthcare," focusing on the innovations pioneered by the Geisinger Health System and spread to health systems across the nation.

Dentzer was formerly senior policy adviser to the Robert Wood Johnson Foundation and editor-in-chief of the health policy journal Health Affairs. Through her long expertise in the fields of health care and health policy, as well as through writing, speaking, moderating and convening, she works to raise awareness of core issues in health and health care, including the need for the U.S. to obtain better value for the money spent on health care and the critical goal of improving population health. She speaks regularly to a wide variety of audiences in the U.S. and overseas.

Susan Dentzer's keynote address, "Patients, Policy and Purpose: Why Innovation Will Shape Our Health Futures" will take place during the opening plenary session on Thursday, March 16.

keynote speaker: SUSAN DENTZER
8:30-9:00am
OPENING CEREMONY
Presenting of the Colors
National Anthem
Official opening of DC2017: IMPACT SPINAL HEALTH.
Introductory remarks from the Presidents of the World Federation of Chiropractic, Association of Chiropractic Colleges and American Chiropractic Association.

A message from Rep. Paul Ryan (R-Wisc.), Speaker of the U.S. House of Representatives

SESSION A:
IMPACTING SPINE CARE AROUND THE WORLD
Moderator: Professor Scott Haldeman
Haldeman is one of the foremost chiropractors of our time. He is a Past President of the North American Spine Society and is the founder of World Spine Care. He holds the office of Chair Emeritus of the WFC Research Council.

9:00-9:05
INTRODUCTORY REMARKS

9:05-9:35
Keynote Address:
Patients, Policy and Purpose: Why Innovation Will Shape Our Health Futures
Susan Dentzer
Escalating costs of health technology and an expanding ageing population in all nations throughout the world means that pressures on health systems to find low-cost, effective solutions are mounting. With low back pain being the largest global cause of disability, Dentzer outlines the role that chiropractors can play in delivering safe, cost-effective conservative care that can positively impact population health.

Professor Jan Hartvigsen

The safety and effectiveness of manual therapies, exercise and patient education—the therapies that chiropractors use most often—in patients with spinal pain and dysfunction has been clearly demonstrated by research in the past two decades, yet the successful integration of chiropractic into mainstream healthcare has been patchy. Professor Hartvigsen, professor of Clinical Biomechanics and Musculoskeletal Research at the University of Southern Denmark, describes what must be done to ensure universal coverage.

9:50-10:05  Tackling the Opioid Epidemic: An Integrated Approach

U.S. Chief Nursing Officer, Rear Admiral Susan Orsega.

Opioid over-prescription has reached epidemic proportions in the U.S. In 2014, there were over 259 million prescriptions for opioids, and it has been cited as a leading cause of new heroin addiction. The American Public Health Association has prioritized opioid use as a key health concern. With many prescriptions related to spinal pain, the presentation will outline the role of chiropractors and others in delivering sustainable conservative solutions.

10:05-10:20  Perceptions of Chiropractic: Results of the Second Palmer Gallup Survey

Ms. Cynthia English

English is a senior research consultant with Gallup. English advises on research design for many of Gallup’s key domestic and international studies, developing content for hundreds of quantitative and qualitative research studies annually. She is the research consultant in charge of the Palmer study, published in 2016.
10:20-10:35 Impacting Spinal Health: Why Global Success Is In Our Hands

Dr. Richard Brown

The identity of chiropractors as spine health and wellbeing experts is largely accepted by the chiropractic profession. The transformation of health systems throughout the world calls for the adoption of conservative care as the primary focus of spinal health management. In this presentation, Brown describes how the chiropractic profession can adapt without loss of identity in order to leverage chiropractors as the health professionals of choice for spinal pain and disability.

10:35-10:50 Impacting Access to Quality Spine Care Through Government Reform

Rep. Patrick Tiberi (R-Ohio)

Congressman Tiberi is Chair of the U.S. House of Representatives’ Sub-Committee on Health, where he advocates for better ways to give Americans better access to quality, affordable health care.

10:50-11:00 Summary and Concluding Remarks

Professor Scott Haldeman
SESSION B:
PHILOSOPHIES OF CARE IMPACTING HEALTH AND WELLNESS

Moderator: Dr. Vivian Kil
Kil is a WFC Council member for Europe and is the Vice-President of the European Chiropractors' Union. A practicing chiropractor, she is a past president of the Netherlands Chiropractic Association.

11:30-11:40 The Biopsychosocialist
Dr. Donald Murphy
Murphy is a chiropractic physician who has pioneered the Primary Spine Care Practitioner program. He is the Medical Director of the Spine Program for Care New England, a large hospital system, and is on the clinical faculty at the Alpert Medical School, Brown University, USA.

11:40-11:50 The Neurologist
Dr. Matthew Antonucci
Antonucci is an acknowledged expert in applied neuroscience as it relates to chiropractic practice. He lectures internationally as part of the Carrick Institute for Graduate Studies and is the director of Neurological Performance and Rehabilitation at Plasticity Brain Centers, Florida, USA.

11:50-12:00 The Vitalist
Dr. Robert Scott
Scott is currently the Provost of Life University, Georgia, USA, having served a number of roles in academic affairs. He is a 1992 graduate of Northwestern Health Sciences University and holds a Master of Education degree from the University of Toronto.
KEY DEBATE:
SCIENCE AND SEMANTICS: THE FUTURE OF SUBLUXATION

Chair: Dr. Eric Russell

Russell is a 1996 graduate of Palmer College of Chiropractic, Davenport, USA. He is currently on faculty as an Associate Professor at Parker University, where he teaches Principles of Chiropractic. He has a particular interest in chiropractic philosophy.

Since the discovery of chiropractic in 1895, debate has raged in relation to the chiropractic subluxation. The term continues to dominate the chiropractic lexicon and it remains the subject of intense discussion both in education and practice. This debate will hear from four powerful speakers who will share their diverse perspectives on the use of subluxation language, its continued role in chiropractic education and its existence as a scientific entity.

Panelists:

Dr. David Newell (UK)

Director of Research, Anglo-European College of Chiropractic, UK

Dr. Laurie Tassell (Australia)

Past President, Chiropractors' Association of Australia

Dr. Ayla Azad (Canada)

President, Ontario Chiropractors Association

Dr. Adrian Wenban (Spain)

Principal, Barcelona College of Chiropractic

12:55-1:00

Summary and Concluding Remarks

LUNCH, TRADE STANDS AND POSTER PRESENTATIONS
2:00-3:30

TRACK 1  ORIGINAL RESEARCH PLATFORM PRESENTATIONS
Clinical Sciences: Low Back and Pelvic Pain
Moderator: Dr. Cecilia Bergstrom (Sweden)

TRACK 2  ORIGINAL RESEARCH PLATFORM PRESENTATIONS
Clinical Sciences: Neck Pain and Headache
Moderator: Dr. Nadege Lemeunier (France)

TRACK 3  ORIGINAL RESEARCH PLATFORM PRESENTATIONS
Health Services Research
Moderator: Dr. Wendy Weber (USA)

TRACK 4  ORIGINAL RESEARCH PLATFORM PRESENTATIONS
Basic Sciences
Moderator: Dr. Han Suk Jung (South Korea)

TRACK 5  NEUROLOGY
Essentials in Neurophysiology for the Chiropractor
Dr. Heidi Haavik (New Zealand)

TRACK 6  SPORTS CHIROPRACTIC
Manual Muscle Testing - An Underused Tool in Documenting Immediate Functional Change
Dr. Ulrik Sandstrom (United Kingdom)

TRACK 7  CONTEMPORARY ISSUES
You Snooze, You Lose: Maintaining Chiropractic's Momentum in Health, Science, Technology and Society
Dr. Christine Goertz (USA)

TRACK 8  PRACTICE MANAGEMENT
Success Without Compromise: Building a Dream Practice
Dr. Patricia Tavares, Dr. Ayla Azad, Dr Nadine Ellul (Canada)
4:00-5:30

TRACK 1  ORIGINAL RESEARCH PLATFORM PRESENTATIONS
Clinical Sciences: Low Back and Pelvic Pain
Moderator: Dr. Elisabeth Angier (United Kingdom)

TRACK 2  ORIGINAL RESEARCH PLATFORM PRESENTATIONS
Clinical Sciences: Neck Pain and Headache
Moderator: Prof. Peter Tuchin (Australia)

TRACK 3  ORIGINAL RESEARCH PLATFORM PRESENTATIONS
Health Services Research
Moderator: Dr. Michele Maiers (USA)

TRACK 4  ORIGINAL RESEARCH PLATFORM PRESENTATIONS
Educational Research
Moderator: Dr. Bart Green (USA)

TRACK 5  NEUROLOGY
Receptor-based Therapies: Essentials of Neuro-rehabilitation
Dr. Matthew Antonucci (USA)

TRACK 6  SPORTS CHIROPRACTIC
Structural Fingerprints: Chiropractic Care for Young Athletes
Dr. Tim Maggs (USA)

TRACK 7  RADIOLOGY
Utilizing Advanced Imaging in Your Practice
Dr. Alicia Yochum (USA)

TRACK 8  PEDIATRICS
Best Chiropractic Practices For Pregnancy and Post-partum Populations
Dr. Carol Ann Weis (Canada)
SESSION 1 (2:00-3:30pm)

TRACK 1: CLINICAL SCIENCE: LUMBAR SPINE & PELVIC GIRDLE

Moderator: Cecilia Bergstrom

The impact of Body Mass Index on Pregnancy-related Pelvic Girdle Pain in nulliparous women in Ireland

Francesa Wuytack, Deidre Daly, Elizabeth Curtis, Cecily Begley

The Prevalence and Impact of Spine Pain in Ontario Long Term Care Seniors

Connie D'Astolfo, Peter Tsasis

An exploratory analysis of gender as a potential modifier of treatment effect among patients in a randomized controlled trial of integrative acupuncture and spinal manipulation for low back pain.

Anupama Kizhakkeveettil, Kevin Rose, Gena Kadar, Eric Hurwitz

Manipulation and McKenzie method eliminates pain and opioid prescriptions: a case study

Ryan Molloy, Nathan Kinkeldey, Zach Jipp

Assessment of chiropractic treatment for active duty, U.S. military personnel with low back pain: a randomized controlled trial

Christine Goertz, Cynthia Long, Robert Vining, Katherine Pohlman, Joan Walter, Ian Coulter

Association between utilization of chiropractic services for low back pain and use of prescription opioids: Preliminary results of a health claims study

James Whedon

The impact of spinal manipulation on lower extremity motor control in lumbar spinal stenosis patients: a single-blind, Phase-I randomized clinical trial

Steven Passmore, Michael Johnson, Stephan Cooper, Mina Aziz, Cheryl Glazebrook
TRACK 2: CERVICAL SPINE

Moderator: Nadege Lemeunier

Dose-response and efficacy of spinal manipulation for cervicogenic headache: short-term outcomes from a randomized controlled trial
Mitch Haas, Gert Bronfort, Roni Evans, Craig Schulzm Darcy Vavrek, Leslie Takaki, Linda Hanson, Brent Leininger, Moni Neradliek

A systematic review of thrust manipulation plus one conservative intervention for non-surgical rotator cuff conditions
Amy Minkalis, Robert Vining, Cynthia Long, Cheryl Hawk, Katie de Luca

Treatment of migraine by Australian chiropractors: A secondary analysis of the ACORN national cross-sectional survey
Craig Moore, Andrew Leaver, John Adams, David Sibbrett

Cranio-cervical dysfunction as a cause of trigeminal impingement: a case report
Paul Gold

Subclinical Neck Pain Affects Motor Skill Acquisition and Transfer as Compared to a Healthy Control Group
Ryan Gilley, Paul Yielder, Julianne Baarbe, Michael Holmes, Heidi Haavik, Bernadette Murphy

Open mouth lateral bending views for craniocervical junction hypermobility: a reliability study
Karthik Hariharan, Michael Schneider, Matthew Maxwell

Integrating Chiropractic Into Concussion Management: A Case Series
Harold Olson, Spencer Lindholm, Michael Tunning
TRACK 3: HEALTH SERVICES RESEARCH

Moderator: Dr Wendy Weber

The quality of life of children under chiropractic care using the PROMIS-25
Joel Alcantara, Jeannne Ohm, Junjoe Alcantara

Mindfulness within Chiropractic
Fuchsia Farrow, Adrian Hunnisett, Sokratis Dinas, Christina Cunliffe

Employer-funded onsite chiropractic: effects on workers’ compensation and associated costs
Chad Henriksen

Spinal pain in Danish school children – how often and how long? The CHAMPS Study-DK
Kristina Dissing, Jan Hartvigsen, Niels Wedderkopp, Christopher Williams, Steven Kamper, Eleanor Boyle, Lise Hestbaek

The STarT Back Tool in Chiropractic Practice: A Narrative Review
Yasmeen Khan

The efficacy of workplace interventions on physical factors for office workers with neck pain: a meta-analysis
Martin Frutiger, Robert Borotkanics, Peter Tuchin

Chiropractic services provided at a rehabilitation specialty hospital
Robert Vining, Stacie Salsbury, Carl Cooley, Jeb Thurmond, Lance Corber, Donna Gosselin, Christine Goertz
TRACK 4: BASIC SCIENCE RESEARCH

Moderator: Han Suk Jung

**Regeneration of the Intervertebral Disc: Evidence Using a Defined Molecular Approach Based Upon the Notochordal Cell Secretome**

Ajay Matta, M. Zia Karim, David Isenman, W. Mark Erwin

**Neuromechanical Responses to Spinal Mobilization and Manipulation in an Ovine Model of Cervical Intervertebral Disc Degeneration**

Christopher Colloca, Roberg Gunzburg, Deed Harrison, Marek Szpalski, Brian Freeman, Mostafa Hegazy, Richard Hinrichs

**Effects of palpation and two-point rolling thermography on skin temperature as assessed with a digital infrared thermography camera**

Les Gilbert, Stephanie Sullivan, Julie Jordan, Ronald Hosek

**Neural correlates of spinal manipulative therapy**

Norman Kettner, Ekaterina Protsenko. Ishtiaq Mawla, Matthew Kowalski, David Swenson, Deanna O'Dwyer-Swenson, Vitaly Napadow, Marco Loggia

**Can you feel it? Limitations in palpating spinal stiffness.**

Stephen Miazaga, Greg Kawchuk, Jonathan Kawchuk, Martha Funabashi, Arnold Wong

**Multimodal imaging of longitudinal medial arch structures in non- and weight bearing posture**

Patrick Battaglia, Ross Mattox, Brett Winchester, Norman Kettner

**Does motor development in early childhood predict spinal pain in early adolescence?**

Lise Hestbaek, Steven Kamper, Jan Hartvigsen, Anne-Marie Nybo Andersen
SESSION 2 (4:00-5:30pm)

TRACK 1: LUMBAR SPINE & PELVIC GIRDLE

Moderator: Elisabeth Angier

Comparison of Outcomes in Patients with Lumbar Radiculopathy Treated with Nerve Root Blocks containing Particulate vs. Non-Particulate Corticosteroids

Susanne Bensler, Cynthia Peterson, Reto Sutter, Christian Pfirrmann

Interdisciplinary rehabilitation including chiropractic for a patient with spinal cord injury

Robert Vining, Donna Gosselin, Jeb Thurmond, Kimberlee Case

Latent Class Analysis derived subgroups of low back pain patients – do they have prognostic capacity?

Anne Molgaard Nielsen, Lise Hestbaek, Werner Vach, Peter Kent, Alice Kongsted

Non-surgical treatments for lumbar spinal stenosis: results from a randomized controlled trial

Michael Schneider, Carlo Ammendolia, Donald Murphy, Ronald Glick, Dana Tudorascu, Sally Morton, Elizabeth Hile

Clinical outcomes in neurogenic claudication using a multimodal program for lumbar spinal stenosis: A long-term follow-up study

Ngai Chow, Danielle Southerst, Deborah Kopansky-Giles, Carlo Ammendolia

Boot camp programs for lumbar spinal stenosis: A randomized controlled clinical trial comparing outcomes following a comprehensive verses a self-directed non-surgical approach

Carlo Ammendolia, Pierre Cote, Y. Raja Rampersaud, Danielle Southerst, Brian Budgell, Claire Bombadier, Gilliam Hawker

Lumbar spine manipulation improves locomotor activity and reduces hypersensitivity in a knee-joint immobilization model

Felipe C.K. Duarte, Carolina Kolberg, Anna Paula Riffel, Taina Scheid, Jessican Araujo Souza, Andrea Horst, Wania Aparecido Partata
ENDURANCE OF NECK EXTRACTOR MUSCLES: EVALUATION OF PATIENTS WITH TENSION-TYPE HEADACHE.
*Andree-Anne Marchand, Marie-Pier Girard, Marie-Eve Hebert, Martin Descarraux*

CHIROPRACTIC CARE OF A 52-YEAR-OLD FEMALE PATIENT PRESENTING WITH CERVICAL SPINE DISC REPLACEMENT SURGERY WITH COMPLICATIONS: A CASE REPORT
*Thomas Bloink, Charles Blum*

THE EFFECTS OF A SINGLE SESSION OF SPINAL MANIPULATION ON STRENGTH AND CORTICAL DRIVE IN ATHLETES
*Thomas Lykke Christiansen, Imran Khan Niazi, Kelly Holt, Rasmus Wiberg Nedergaard, Jens Duehr, Vivian Schlupp, Paul Marshall, Kemal Turker, Jan Hartvigen, Heidi Haavik*

NECK LOADING DURING THORACIC HIGH-VELOCITY LOW AMPLITUDE (HVLA) MANIPULATION: AN INVESTIGATION OF REGIONAL INTERDEPENDENCE
*Shawn Engell, Samuel Howarth, John Jay Triano*

THORACIC SPINAL STIFFNESS MEASUREMENT AND RELIABILITY: INFLUENCE OF SPINAL LEVEL AND CHRONIC THORACIC PAIN.
*Isabelle Page, Arnaud Lardon, Francois Nougourou, Martin Descarraux*

DO CLINICIAN AND PATIENT REPORTS OF ADVERSE EVENTS ALIGN? ASSESSING ADVERSE EVENTS AFTER CHIROPRACTIC CARE AT A CHIROPRACTIC TEACHING CLINIC: AN ACTIVE SURVEILLANCE PILOT STUDY
*Katherine Pohlman, Patrick Bodnar Harrison Ndetan, Greg Kawchuk*

THE EFFECT OF A TRAINING PROGRAM ON SPEED DEVELOPMENT FOR STUDENTS DELIVERING PRONE THORACIC MANIPULATIONS
*Steven Lester, David Starmer, Leah Barbaro, Brittany Fraser, Justine Landry, Kailee Stock*
TRACK 3: HEALTH SERVICES RESEARCH

Moderator: J. Todd Knudsen

Comparison of patient, clinician, and researcher definitions of chronic pain: Data from a national sample of chiropractic providers and their patients with low back and cervical pain

Lara Hilton, Margaret Whitley, Lisa Miyashiro, Gery Ryan, Ian Coulter

Predictive factors for reporting adverse events following spinal manipulation in randomized clinical trials - secondary analysis of a systematic review

Lindsay Gorrell, Benjamin Brown, Reidar Lystad, Roger Engel

Building chiropractic research capacity for the chiropractic profession to impact spinal health: an international survey

Claire Johnson, William Meeker, Gregory Cramer, Mitchell Haas, Robert Mootz, John Mrozek

Integration of chiropractic services in a patient centered medical home

Joel Stevens, Brian Justice

Work-related Risk Factors for Spinal Pain: Data from the 2015 National Health Interview Survey

Haiou Yang, Ming-Lun Lu, Scott Haldeman, Naomi Swanson, Edward Hitchcock, Dean Baker, Sara Luckhaupt

Chiropractic integration into multidisciplinary healthcare centers: results of a multi-site qualitative case study

Christine Goertz, Elissa Twist, Stacie Salsbury, Virginia Smith, Anthony Lisi

Best practices for chiropractic care for older adults: a consensus update

Cheryl Hawk, Michael Schneider, Mitchell Haas, Paul Dougherty, Brina Gleberzon, Lisa Killinger, Paul Katz, John Weeks
TRACK 4: EDUCATIONAL RESEARCH

Moderator: Bart Green

A Description of the Blended Experiential Learning Environment and Comparison of Weekly Quizzes versus Midterm Examinations as Assessments of Student Learning

Stephanie Sullivan, Kathryn Hoiriis

Interprofessional practice and clinical residency training in spine pain for doctors of chiropractic: A descriptive comparison of two programs in southern California

Robb Russell, Valeri Johnson

Career choice motivations, demographics and future career aspirations of UK chiropractic students.

Sharee Muir, Adrian Hunnisett, Christina Cunliffe

Tumor imaging instruction and assessment at Chiropractic Colleges in the US and Canada, a pilot study with implications for NBCE content

Kathleen Linaker, Sarah Arpin, Charles Fisher, Michael Sackett, Leslie Georger

Test anxiety in chiropractic college, a descriptive analysis of second and third year chiropractic student's test anxiety

Judy Bhatti, Katherine Manley-Busser, Elissa Twist

Teaching teams to teach: program evaluation results from an interprofessional faculty development program in academic family medicine

Judith Peranson, Deborah Kopansky-Giles, Morgan Slater, Abbas Ghavam-Rassoul

A qualitative study describing the experience of students successively enrolled in chiropractic and medical school. Julie-Marthe Grenier, Danica Brousseau
POSTER RECEPTION
5:30-6:30pm Thursday, March 16, 2017
International Foyer, Washington Hilton Hotel

• Experience the poster exhibition in a relaxed atmosphere with complimentary refreshments.
• Learn about new innovations in the fields of chiropractic research.
• Be inspired by the latest research and have a chance to meet the world's leading chiropractic researchers.
POSTER PRESENTATIONS

A scoping review of the literature on functioning and disability in manual medicine using the International Classification of Functioning, Disability and Health (ICF)
Ellen Aartun, Hainan Yu, Pierre Cote

Characteristics of Australian chiropractors treating athletes: Results from a practice based research network.
Jon Adams, Romy Lauche, Katie DeLuca, Michael Swain, Wenbo Peng, David Sibbritt

Google Bias Toward Chiropractic: Effects of Frame Salience in Globalized Media on PageRank
Mohammed Al Azdee, Stephen Perle

 Detecting publication bias in chiropractic clinical research
Medhat Alattar

The relationship between the quality of life of chiropractors and their sense of coherence.
Joel Alcantara, Jeannne Ohm, Junjoe Alcantara

The physical and mental impact of neurogenic claudication: the patients’ perspective.
Carlo Ammednolia, Michael Schneider, Kelly Williams, Susan Zickmund, Megan Hamm, Kent Stuber, Christy Tomkins-Lane, Y. Raja Rampersaud

Anatomy gross I palpation review video feasibility and usage
Karen Anthony, Michael Oppelt, Tom Brozovich, Michael VanNatta

Spinal arteriovenous malformation mimicking acute transverse myelitis: A case study
Christopher Arick, Heather Miley

Assessment of cultural competence and attitudes among chiropractic students
Jason Bartlett, Jon Wilson, Rebecca Wates, Mark Pfefer

Progression of solitary bone plasmacytoma to multiple myeloma in a 27-year-old male with low back pain.
Patrick Battaglia, Daniel Haun, Mero Nunez, Norman Kettner

CMRT and acupuncture in the treatment of dysmenorrhea (oligomenorrhea): A case report
Christine Benner, Charles Blum

Epidemiology, diagnosis, risk factors and conservative treatment of paediatric stroke: A literature review.
Jean Philippe Berube, Jean-Phillipe Caron, Veronique Lavergne, Chantal Doucet

Effectiveness of TheraBand Kinesiology Tape on Low Back Pain Patients’ Pain and Disability
Barton Bishop, Jay Greenstein, Jena Etnoyer-Slaski, Robert Topp

Association Between the Type of First Healthcare Provider and the Duration of Financial Compensation for Occupational Back Pain.
Marc-Andre Blanchette, Michele Rivard, Clermont Dionne, Sheila Hogg-Johnson, Ivan Steenstra

Chiropractic care of a 30-year-old male patient presenting with cervical spine disc replacement surgery with complications: A Case Report
Thomas Bloink, Charles Blum

Chiropractic as part of an interdisciplinary team for the care of a patient with an orbital pseudotumor: A case report.
Thomas Bloink, Charles Blum

B6 hypervitaminosis during pregnancy with neurological symptoms: A case report
Charles Blum

Chiropractic conservative care of a patient presenting with carpal tunnel syndrome: A case report.
Charles Blum
POSTER PRESENTATIONS

Effect of spinal manipulative therapy on mechanical pain sensitivity in patients with chronic non-specific low back pain: a randomized, controlled trial
Bryan Bond, Christopher Kinslow, Adam Yoder, Wen Liu

Self-perceived confidence of chiropractic student interns managing children with Autism Spectrum Disorder: A student survey
Beatrice Borges, Lisa Rubin

Relief of neurological symptoms secondary to surgical removal of thoracic astrocytoma and laminectomy by category I block placement: a case report
William Bor

The impact of collaborative testing on test anxiety
Breanne Bovee

Incidental finding of sinus mucus retention cyst in a chiropractic teaching clinic
Heather Bowyer, Ryan Funderburk, Matthew Richardson

The complex decision-making that radiographic findings require. A secondary analysis of older adults with low back pain screened for a randomized controlled trial
James Boysen, Zacariah Shannon, Yasmeen Khan, Breanne Bovee, Robert Vining

Swimming and chiropractic adjustment effects in an animal model of osteopenia
Francielle Braz Oliveira da Silva, Sergio Inacio Rech, Gunther Gehlen, Danniell Facchin

The health and injury profile of adult Australian competitive surfers
Andrew Burgess, Michael Swain, Reidar Lystad

Does a visual teaching guide to Upper Cervical Specific Technique improve retention in chiropractic students when compared to a written teaching guide?
Alice Cade, Graham Dobson, Matthew Sherson, Kelly Holt, Heidi Haavik

Shoe orthotics for the treatment of chronic low back pain: a randomized controlled trial
Jerrilyn Cambron, Jennifer Dexheimer, Manuel Duarte, Sally Freels

Atypical presentation of hemiparesis following a paediatric stroke: A case report
Jean-Philippe Caron, Jean-Philippe Berube, Veronique Lavergne, Chantal Doucet

Alleviating pudendal neuralgia pain and symptoms with super pulsed laser therapy
Christopher Carraway, Douglas Johnson, Robin Schumacher

Super pulsed laser therapy for the amelioration of migraine headaches and associated pain
Christopher Carraway, Douglas Johnson, Robin Schumacher

Latent class regression analysis for clustering stiffness curves: An exploratory analysis
Yolanda Casciaro, Gregory Kawchuk, Narashima Prasad

Improvement in post-concussion symptoms in 3 female patients utilizing the NUCCA procedure after failed management with high velocity low amplitude manipulation
Jonathan Chung

Diagnosis and Referral of a 26-year-old female with dysmenorrhea due to teratomas
Diane Clark, Matthew Richardson, Bridget Edkin

Comparison of chiropractic student values between digital and manual inclinometer mensuration of the spine
Karima Cooper, Joseph Guagliardo

Improving data literacy and understanding of experimental design in a chiropractic technique laboratory class
Robert Cooperstein
POSTER PRESENTATIONS

Two clinically contrasting cases of ankylosing spondylitis  
*Stacey Cornelson, Allison Harvey, David Beavers, Norman Kettner*

Appropriateness of spinal manipulation/mobilization for chronic neck pain patients: a systematic review  
*Ian Coulter, Howard Vernon, Eric Hurwitz, Cindy Crawford, Margaret Whitley, Marika Booth*

Appropriateness of spinal manipulation/mobilization for chronic low back pain: systematic review  
*Ian Coulter, Eric Hurwitz, Howard Vernon, Cindy Crawford, Raheleh Khorsan, Margaret Whitley, Marika Booth*

A Case-series of patients with musculoskeletal conditions presenting to a World Spine Care Clinic in Moca, Dominican Republic.  
*Sophia da Silva-Oolup, Margareta Nordin, Pierre Cote, Paula Stern, Geoff Outerbridge*

*Katie De Luca, Lynne Parkinson, Scott Haldeman, Julie Byles, Fiona Blyth*

Use of shoe orthotics within Illinois chiropractic physicians' offices  
*Jennifer Dexheimer, Abdulla Hafid, Manuel Duarte, Jerrilyn Cambron*

Atypical presentation of cervical myelopathy in a chiropractic practice  
*Robert Donkin*

The quality of life of chiropractic students using the Patient Reported Outcomes Measurement Information System.  
*Brian Dooley, John Hart, Joel Alcantara*

Expression of a neurogenic inflammation marker at a neurosegmentally linked joint in rats exposed to lumbar facet joint injury  
*Felipe C. K. Duarte, Derek Zwambag, Stephan Brown, Andrea Clark, Mark Hurtig, John Srebely*

Palpatory acuity among chiropractic students and experienced chiropractors  
*Jens Duehr, Imran Khan Niazi, Rasmus Wiberg, Lisa Baptista, David Russell, Heidi Haavik, Kelly Holt*

Student exam performance: lecture versus e-learning  
*Nadine Ellul, David Starmer*

Management of back pain-related disorders in a community with limited access to health care services: a case for introducing chiropractors as service providers  
*Peter Emroy, Amy Brown, Doug Cameron, Alex Pessoa, Jennifer Bolton*

A novel method for assessing the risk of developing adolescent idiopathic scoliosis - the Scoliscreen pilot trial.  
*Roger Engel, Peter Anderson*

Spinal manipulation for the management of chronic obstructive pulmonary disease – strategy for developing a body of evidence.  
*Roger Engel, Subramanyam Vemulpad*

Inter-examiner reliability for identifying the first large lower cervical spinous process  
*Susan Esposito, Linda Mullin Elkens, Ronald Hosek, Nicole Poirier, Frederick Sherkel, Bridgette Kinard*

Trauma induced severe refractory motion sickness disorder treated with sacro occipital technique, applied kinesiology, and cranial chiropractic care: A case report.  
*Vincent Esposito, Sr., Vincent Esposito, Jrs., Charles Blum*

Is this back pain killing me? All-cause and cardiovascular specific mortality in older Danish twins with spinal
POSTER PRESENTATIONS

pain.
Matt Fernandez, Eleanor Boyle, Jan Hartvigsen, Manuela Ferreira, Kathryn Refshauge, Chris Maher, Kaare Christensen, John Hooper, Paulo Ferreira

Chiropractic management of a 6-month-old male with deformational plagiocephaly, facial asymmetry, delayed constriction, and abdominal rigidity
Melissa Ferranti, Brittany Anastasio, Christopher Varnum

Management of a 7-year-old competitive cheerleader with an acute isthmic spondylolisthesis
Melissa Ferranti, Michelle Gingras, Cheney Brinkley

Experiences with online incident reporting and learning using CPIRLS
Rob Finch, Jatinder Benepal

Queen’s Chiropractic Practice Based Research Network: preliminary results
Simon French, Peter Beliveau

Description of musculoskeletal extremity complaints in children and adolescents: A systematic review
Signe Fuglkjaer, Kristina Boe Dissing, Lise Hestbaek

Spinal tissue loading created during spinal manipulative therapy applied by different methods
Martha Funabashi, Francois Nougarou, Martin Descarraux, Narashima Prasad, Greg Kawchuk

Preliminary findings from an active surveillance reporting system among chiropractors
Martha Funabashi, Katherine Pohlman, Silvano Mior, Haymo Thiel, J. David Cassidy, Michael Westway, Jerome Yager, Eric Hurwitz, Greg Kawchuk, Maeve O’Beirne, Sunita Vohra

The interaction between spinal manipulative therapy input parameters on the loading characteristics of spinal segments
Martha Funabashi, Francois Nougarou, Martin Descarraux, Narashima Passad, Greg Kawchuk

Comparison of two lumbar manual therapies on temporal summation of pain in healthy volunteers
Charles Gay, Mark Bishop

Improvements of pain, disability and quality of life following chiropractic care for back pain
Filip Geden, Viktor Dansk, Tobias Sundberg, Kristina Burdstrom

The interpersonal processes of care experienced by patients in a chiropractic teaching clinic.
Tate Gentile, Brian Dooley, Joel Alcantara

Anterior thoracic adjusting and the relationship to cervical flexion: a retrospective case study of twenty-four patients
Harvey Getzoff, Charles Blum

Students’ Perception of Changes Made to the Testing of Psychomotor (Technique) Skills during the 2015-16 Academic Year at the Canadian Memorial Chiropractic College
Brian Gleberzon, Dominic Guiliano

Toward a Standardized Chiropractic Technique Program: Consensus Results of Two Inter-Collegiate Workshops
Brian Gleberzon, Christopher Roecker, Christopher Good, Charles Blum, Robert Cooperstein

Association of biopsychosocial factors with back pain in adult Americans
Bart Green, Claire Johnson, Jeff Snodgrass, Monica Smith, Patricia Risica

The Effect of TheraBand Kinesiology Tape on Post-Manipulation Neck Pain and Range of Motion
Jay Greenstein, Jena Etnoyer-Slaski, Barton Bishop, Robert Topp, Phil Page

Effectiveness of Biofreeze on shoulder pain and in-office exercise performance: A preliminary pilot study
POSTER PRESENTATIONS

Jay Greenstein, Jena Etnoyer-Slaski, Barton Bishop, Robert Topp
EMG Activation of Cervical Musculature during Therapeutic Exercise with TheraBand Resistance vs Manual Resistance in Neck Pain Population

Jay Greenstein, Jena Etnoyer-Slaski, Barton Bishop, Robert Topp
The radiographic interpretation experience of chiropractors and chiropractic students

Julie-Marthe Grenier
A scoping study of knowledge translation theory and factors influencing research evidence use related to the Canadian chiropractic setting

Diane Grondin
Comparison of beginner and advanced student scores on objective structured clinical examinations in a chiropractic program

Joseph Guagliardo
Reliability of a new technique for measuring spinal stiffness in asymptomatic participants

Malieh Hadizadeh, Greg Kawchuk, Isabelle Page, Martin Descarraux
Chest pain and posterior rib misalignment: a differential diagnosis

Chad Hagen
A survey of attitudes toward evidence-based clinical practice among doctors of chiropractic specializing in pediatrics

Julie Hartman, Christine Goertz, Dana Lawrence, Katherine Pohlman
Robotic simulation of clinical exams: Describing the mechanical effect of alar ligament injury

Robert Hartman, Karthik Hiarharan, Robert Tisherman, Michael Schneider, Michael Timko, Gwendolyn Sowa, James Kang
Leg pain location and neurological signs relate to outcomes in primary care patients with low back pain

Lisbeth Hartvigsen, Lise Hestbaek, Alice Kongsted
Sport specific rehabilitation for a Paralympic Rugby prospect: A case study

Lacey Hatfield, Kelley Humphries
Unique ultrasound features of bilateral plantar fibromatosis

Daniel Haun, Patrick Battaglia, Shannon Kuhn, Norman Kettner
SWOT analysis of chiropractic education and services provided within the hospital setting according to students, residents and new graduates of a North American chiropractic program.

Navine Haworth, Linda Jones
Exploration of new graduate collaboration experiences

Navine Haworth, Linda Jones
The impact of depression on academic performance of chiropractic students

Shawn He, Niu Zhang
The forces exerted by a chiropractor on pediatric patients during high-speed low amplitude spinal manipulative care.

Walter Herzog, Peter Kevorkian, Brent Russell, Joel Alcantara
McKenzie, manipulation, and therapeutic neuroscience, the three legged stool to the PROMIS of function: a case study

Nathan Hinkeldey, Zach Jipp
Patient disability: a case for the detrimental effects of patient education
POSTER PRESENTATIONS

Nathan Hinkeldey, Jace Peters  
Chiropractic treatment of a post-concussion syndrome secondary to volleyball injury in a 14-year-old female: A case report  
Marilyn Holbeck

Influence of open-lab attendance on student performance using force sensing table technology(FSTT)  
Dana Hollandsworth, Daniel Armstrong, Eric Russell

Self-reported lifestyle and health ratings may correlate with time under chiropractic care: results from a practice-based pilot study  
Ronald Hosek, Eric Plasker, Edward Owens, Stephanie Sullivan

An evaluation study of the for reduction of temporomandibular joint dysfunction symptoms using low-level laser therapy  
Jennifer Illes, Clara Quadra

Student Self-Assessment and Learning Using ExamsSoft Tools  
Fiona Jarrett-Thewel, Deborah Barr, Jeanmarie Burke

Biopsychosocial risk factors associated with low back pain in stroke survivors  
Claire Johnson, Bart Green

Bibliometric analysis of publications from European Chiropractic Union member countries in the JMPT from 2000 to 2015  
Claire Johnson, Bart Green

"I’m afraid I’ll offend them!" Learning how to approach a sensitive topic using standardized patients  
Martha Kaeser, Michelle Anderson

Concussion knowledge among sport chiropractors  
Mohsen Kazemi, Khushboo Vora, Mary Bogumil

A comparison of basic science scores on the National Board of Chiropractic Examiners part I examination between tutors and tutees at a chiropractic college  
Amilliah Kenya, John Hart, Charles Kenya

Mohsen Khamessipour, Michael Hall

Chiropractic manipulative reflex technique (CMRT) treatment for GERD of a 3 year old male child: A case report  
Robert Klingensmith, Charles Blum
Thursday, March 16, 2017

A unique opportunity to see the capital city of the U.S. by night. Visit the iconic landmarks of Washington D.C. on this spectacular guided tour.
Quality From Seed to Supplement®

Changing lives is our passion and has been since our company’s inception in 1929. This passion is what drove our founder, Dr. Royal Lee, to develop and pioneer the first whole food supplement on the market, the revolutionary Catalyn®.

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Visit booth 300 to learn more.
**Nick Buettner** is committed to informing, inspiring and connecting people and ideas. His work with the Blue Zones expedition team provided him a firsthand, in-person glimpse of these Blue Zones.

So what exactly are Blue Zones? In 2004, a project was undertaken to identify Blue Zones, pockets of the world where people live to age 100 ten times more often than they do in the United States.

After these Blue Zones were identified, National Geographic and a team of scientists set about finding out exactly why these people reached such great ages.

Nick Buettner was the Executive Producer of the Blue Zones expeditions to Okinawa, Costa Rica and Icaria. As a leader on the Blue Zones team, Nick led all field operations and collaborated with Good Morning America, CNN, AOL, WCCO and the National Geographic channel.

Using National Geographic photography and dynamic storytelling delivery, Nick will take the DC2017 audience to these longest-lived cultures, share his own observations from the field, and describe ideas to immediately increase their own well-being.

Nick Buettner's keynote address will open the plenary session on Friday, March 17 and will be entitled: "Helping Your Patients Live Longer and Be Happier."
Steve Wiley's keynote address will take place on Friday, March 17 and will be entitled: "A Transformational Journey: Leadership Lessons From Gettysburg."

**Steven B. Wiley** is the President of The Lincoln Leadership Institute at Gettysburg.

He is a proven entrepreneur, author, and highly acclaimed speaker who has influenced and entertained tens of thousands of top executives from around the world. Without exception, Steve Wiley receives the highest ratings possible from his audiences and his manner of presenting leadership development and leadership insights have received high praises.

His business experience includes the founding of three companies: two international franchise organizations and a national chain of fleet management centers.

Steve has been featured in television commercials and advertisements in the *Wall Street Journal, Chicago Tribune, Los Angeles Times* and *New York Times*.

Over the past ten years, he has conducted thousands of seminars on negotiation, sales leadership and wellness for numerous public and private sector organizations at conferences across the country.
SESSION C:
IMPACT THROUGH LEADERSHIP IN PRACTICE:
Moderator: Dr. Clay McDonald

McDonald has over 30 years experience as a chiropractic practitioner, including over 20 years in administrative and educational roles. He has been President of Logan University since 2012, where he has expanded the institution to include numerous programs besides chiropractic. McDonald has an MBA from St. Ambrose University and a JD from Valparaiso University School of Law.

8:30-8:35 Welcome and Premier Sponsor Recognition

8:35-9:15 Keynote Address:
Helping Your Patients To Live Longer and Be Happier
Nick Buettner

Buettner is committed to informing, inspiring and connecting people and ideas. His work with the Blue Zones exhibition team provided him with a first-hand, in-person glimpse of these Blue Zones – places that have the greatest life expectancy and where more people reach age 100 than anywhere else in the world. In this fascinating keynote address, Nick will share insights into how doctors of chiropractic can help their patients to live healthier, happier, more active lives.

9:15-10:15 A Transformational Journey: Leadership Lessons From Gettysburg
Steven B. Wiley

Wiley is the Founder and President of the Lincoln Leadership Institute at Gettysburg. Hailed by ABC as 'The best speaker you’ve never heard of', and by USA Today as 'The most powerful performance training available.' What can the past teach you about present day leadership? Why are great leaders made, not born? Why do great organizations need great leaders? Get the answers to these questions and more insights during this fast-paced session to help doctors of chiropractic succeed in their careers.
10:15-10:45 The Road to Rio: How Chiropractic Shone at the Games

Dr. Peter Garbutt

Garbutt is the President of FICS, the International Federation of Sports Chiropractic. He is the Chair of Sports Chiropractic and was recently honored as the Chiropractors’ Association of Australia’s Chiropractor of the Year. As a chiropractic member of the host medical services at the Rio Olympic Games, Dr. Garbutt will share his experiences and describe what it takes to get to the top in sports chiropractic.

REFRESHMENT BREAK, TRADE STANDS AND POSTER PRESENTATIONS
SESSION D:
SPOTLIGHT ON SCIENCE AND SCOPE

11:15-12:00 Achieving Practice Goals through Clinical Excellence: A Model for Success

Dr. Mark Studin

Studin is an Adjunct Assistant Professor in Clinical Sciences at the University of Bridgeport and is Adjunct Professor at Texas Chiropractic College. He is a diplomate of the American Academy of Pain Management and the American Academy of Medical Legal Professionals. He is the CEO of the Academy of Chiropractic, an organization that provides training for chiropractors in running an efficient, ethical practice based on a commitment to clinical excellence.

12:00-12:45 KEY DEBATE: SHOULD CHIROPRACTIC REMAIN A DRUGLESS PROFESSION?

Chair: Dr. William Morgan (USA), President, Parker University

Dr. Chad Kulak (Canada) President, Alberta College and Association of Chiropractors

Dr. Kim Humphreys (Switzerland) Head of Chiropractic Department, University of Zurich.

Dr. Musimbi Ondeko (Kenya) Vice-President, African Chiropractic Federation.

Dr. John Williams (Italy) President, Association of Italian Chiropractors

Chiropractors have traditionally been recognized as health professionals who do not use drugs or surgery. In recent years, some jurisdictions around the world have permitted limited prescribing rights for chiropractors. This has been celebrated in some quarters as a justified expansion of scope of practice, while at the same time others in the profession see it as an abomination and a betrayal of chiropractic’s identity. This debate sees advocates and opponents of drug use in chiropractic come together to debate this emotive issue.

LUNCH, TRADE STANDS AND POSTER PRESENTATIONS
DAY 2 - FRIDAY, MARCH 17, 2017

2:00-3:30

TRACK 1  ORIGINAL RESEARCH PLATFORM PRESENTATIONS
Clinical Sciences: Low Back and Pelvic Pain
Moderator: Dr. Christine Goertz (USA)

TRACK 2  ORIGINAL RESEARCH PLATFORM PRESENTATIONS
Basic Sciences
Moderator: Dr. Lise Lothe (Norway)

TRACK 3  ORIGINAL RESEARCH PLATFORM PRESENTATIONS
Health Services Research
Moderator: Dr. Gabrielle Swait (United Kingdom)

TRACK 4  ORIGINAL RESEARCH PLATFORM PRESENTATIONS
Educational Research
Moderator: Dr. Claire Johnson (USA)

TRACK 5  PATIENT MANAGEMENT
Impacting Behavior Change Using Motivational Interviewing
Dr. Lia Nightingale and Dr. Alex Margrave (USA)

TRACK 6  CHIROPRACTIC CARE FOR SENIORS
Going the Distance: The Spinal Stenosis Boot Camp
Dr. Carlo Ammendolia (Canada)

TRACK 7  PEDIATRICS
Can Impacting Spinal Health Affect Pediatric Wellbeing?
Dr. Jennifer Brocker and Dr. Elise Hewitt (USA)

TRACK 8  PRACTICE MANAGEMENT
Proactive, Aggressive Media Relations
Laura Carabello, Sherry McAllister (USA), Louis Sportelli (USA), Dr Scott Haldeman (USA), Mr David Chapman-Smith (Canada)
4:00-5:30

**TRACK 1**  ORIGINAL RESEARCH PLATFORM PRESENTATIONS
Clinical Sciences: Low Back and Pelvic Pain
*Moderator: Dr. Lise Hestbaek (Denmark)*

**TRACK 2**  ORIGINAL RESEARCH PLATFORM PRESENTATIONS
Basic Sciences
*Moderator: Dr. Heidi Haavik (New Zealand)*

**TRACK 3**  ORIGINAL RESEARCH PLATFORM PRESENTATIONS
Health Services Research
*Moderator: Dr. Cheryl Hawk (USA)*

**TRACK 4**  TECHNIQUE
Instrument Assisted Adjusting
*Dr. Arlan Fuhr (USA)*

**TRACK 5**  NUTRITION
Integrating Nutrition into Chiropractic Practice
*Dr John Troup (USA)*

**TRACK 6**  CHIROPRACTIC CARE FOR SENIORS
Clinical Considerations in the Care of Seniors
*Dr. Lisa Killinger (USA)*

**TRACK 7**  LEADERSHIP
Creating Impact for Women in Academia: Finding the Strength to Open the Doors to Advancement
*Dr. Michelle Barber, Dr. Virginia Barber, Dr. Tracey Littrell (USA)*

**TRACK 8**  MEDICARE DOCUMENTATION - JUST TELL ME WHAT TO DO
*Dr. Steven Conway*
**SESSION 1 (2:00-3:30pm)**

**TRACK 1: CLINICAL SCIENCE: LUMBAR SPINE & PELVIC GIRDLE**

Moderator: Christine Goertz

**Prevention of low back pain: effect and cost-effectiveness of preventive treatment (Chiropractic Maintenance Care) as compared to symptomatic treatment – a pragmatic randomized clinical trial**

Andreas Eklund, Irene Jensen, Malin Lohela-Karlsson, Jan Hagberg, Lennart Bodin, Charlotte Lebouf-Yde, Alice Kongstad, Iben Axen

**Non-pharmaceutical management of an 80-year-old Caucasian female: A case report**

Kenice Morehouse-Grand, Stephen Grand

**Correcting thoracic adolescent idiopathic scoliosis using a new 3D bracing approach: a case study**

Bradley Gage, Jeb McAviney, Firoz Miyanjji, Arvindera Ghag

**Do chiropractors undertake weight management interventions?**

Peter Beliveau, Michael McIsaac, Silvano Mior, Simon French

**Comparison of Outcomes in Non-Specific Low Back Pain (LBP) Patients with and without Modic changes that Receive Chiropractic Treatment**

Michele Annen, Cynthia Peterson, B. Kim Humphreys

**The efficacy of manual therapy for pain and disability in older persons with chronic low back pain: A systematic review**

Katie de Luca, Sheng-Hung Fang, Justin Ong, Ki Soo Shin, Samuel Woods, Peter Tuchin

**A Systematic Review of Musculoskeletal Taping Methods**

Michael Schneider, Chris Bise, Brent Leining, Emily Polakowski
TRACK 2: CLINICAL SCIENCE: CERVICAL SPINE

Moderator: Lise Lothe

Spinal manipulation dosage is affected by tactile perception

*Steven Passmore, Geoff Gelley, Brian MacNeill*

A secondary analysis of the interexaminer reliability of motion palpation for the most fixed spinal segment

*Robert Cooperstein, Morgan Young*

The long-term effects of brief simulated LVVA loads on neurogenesis in cultured PC-12 cells

*Liang Zhang, Chao Hua Yao*

The effects of a single session of spinal manipulation on strength and cortical drive in stroke patients

*Kelly Holt, Imran Khan Niazi, Rasmus Wiberg Nedergaard, Jens Duehr, Imran Amjad, Muhammed Shafiq, Harrison Ndetan, Heidi Haavik*

Motor neuron excitability attenuation as a sequel to lumbar manipulation in low back pain patients

*J. Donald Dishman, Jeanmarie Burke, Paul Dougherty*

Spinal stiffness assessment with simultaneous magnetic resonance imaging: A feasibility study to determine how various spinal tissues contribute to spinal stiffness measures.

*Peter Jun, Greg Kawchuk*

Sonographic diagnosis of upper extremity effort thrombosis (Paget-Schroetter syndrome): a case report

*Ross Mattox, Norman Kettner*
TRACK 3: HEALTH SERVICES RESEARCH

Moderator: Gabrielle Swait

Research priorities of the Canadian chiropractic profession
Simon French, Paul Bruno, Jill Hayden, Greg Kawchuk, Steven Passmore, John Srebely, Peter Beliveau

Integrative clinical pathway for veterans with spine pain and mental health co-morbidities: results of a Delphi process study
Christine Goertz, Stacie Salsbury, Cheryl Hawk, Robert Vining, Richard Branson, Linda Burgo, Virginia Smith, Robert Wallace, Cynthia Long, Anthony Lisi

Is there a role for chiropractors in managing sick leave as part of work disability prevention for musculoskeletal disorders? - A qualitative study of Nordic chiropractors.
Mette Jensen Stockendahl, Ole Kristoffer Larsen, Caspar Glissman Nim, Iben Axen, Ole Christian Kvammen, Corrie Myburgh

Chiropractors’ perceived barriers and facilitators to managing sickness absence: A survey of Nordic practice.
Mette Jensen Stockendahl, Caspar Glissman Nim, Ole Kristoffer Larsen, Iben Axen, Ole Christian Kvammen, Corrie Myburgh

A clinician’s approach to doctor – patient boundaries
Stuart Kinsinger

Effects of globalized media tone on bias toward chiropractic in Google pagerank
Mohammed Al-Azdee, Stephen Perle

Association between utilization of chiropractic care for low back pain and risk of adverse drug events: preliminary results of analysis of New Hampshire insurance claims data
James Whedon
TRACK 4: EDUCATION RESEARCH

Moderator: Claire Johnson

If you build it, they will come. The preliminary impact of a faculty mentoring program

*Michael Tunning, Dustin Derby, Kelly Krell-Mares, Michelle Barber*

Baseline evaluation of the evidence-based practice competencies for faculty and students at chiropractic program: a Cross-Sectional Survey

*Anjum Odhwami, Gene Giggelman, Pradip Sarkar, Katherine Pohlman*

Analysis of Immediate Student Outcomes Following a Change in Gross Anatomy Laboratory Teaching Methodology

*Salman Afshapour, Abigail Gonsalves, Eric Partin*

Student and new graduate perception of hospital versus traditional institution clinic in clinical educational experience

*Navine Haworth, Linda Jones*

Engagement as predictors of performance in a single cohort of undergraduate chiropractic students

*Jacqueline Rix, Phillip Dewhurst, David Newell, Caroline Cook*

Distribution of self-theories of intelligence in matriculating chiropractic students

*Christopher Petrie*

The Effect of Online Formative Self-Assessment on Academic Performance of Chiropractic Students: A pilot study

*Munyeong Choi, Douglas Black*
SESSION 2 (4:00-5:30pm)

TRACK 1: CLINICAL SCIENCE: LUMBAR SPINE & PELVIC GIRDLE

Moderator: Lise Hestbaek

Risk factors for persistent pelvic girdle pain 12 years postpartum
Cecelia Bergstrom, Margareta Persson, Ingrid Mogren

Do clinical questionnaires for lumbar stiffness and instability correlate with mechanised assessment of lumbar spinal stiffness? An agreement study.
Madeline Morrison, Aron Downie, Benjamin Brown, Greg Kawchuk, Michael Swain

The relationship between growth, maturation, and spinal pain in adolescents: a systematic review
Michael Swain, Steven Kamper, Chris Maher, Carolyn Broderick, Damian McKay, Nicholas Henschke

Adherence to acute low back pain guideline recommendations: a cluster randomized controlled trial with chiropractors and physiotherapists
Denise O’Connor, Joanne McKenzie, Simon French, Matthew Page, Duncan Mortimer, Bruce Walker, Simon Turner, Jennifer Keating, Jeremy Grimshaw, Susan Michie, Jill Francis, Sally Green

Primum non nocere: Upholding patient preference and provider duty to non-maleficence through patient education, trial of care, and co-management in a case of cauda equine
Virginia Barber, Tracey Littrell, Michelle Barber

Mind Body Intervention (MBI) for Chronic Lower Back Pain: A Pilot Study
Paul Dougherty, Jurgis Karuza, Jennifer Murphy, Amanda Dluzniewski, Dorian Savino

The Combined Use of Spinal Manipulation and Acupuncture as a potential Integrative Care for Low back pain: Analysis of Health Interview Survey Data
Anupama Kizhakkeveettil, Harrison Ndetan, Cheryl Hawk, Marion Evans, Vishaldeep Sekhon
TRACK 2: BASIC SCIENCES RESEARCH

Moderator: Heidi Haavik

Demonstration of central conduction time and neuroplastic changes after cervical lordosis rehabilitation in asymptomatic subjects: A randomized, placebo-controlled trial

Ibrahim Moustafa-Moustafa, Alia Atiaa Mohamend Diab, Shima Taha, Deed Harrison

Quantifying In Vivo Vertebral Motions During Impulsive Spinal Manipulation

Christopher Colloca, Roberg Gunzburg, Marek Szpalski, Mostafa Hegazy

The effect of chiropractic treatment on the reaction and response times of special operation forces military personnel: a randomized controlled trial

James DeVocht, Dean Smith, Cynthia Long, Robert Vining, Thomas Jones, Qian Li, Christine Goertz

Subclinical Neck Pain leads to altered multi-sensory integration at baseline and four week follow-up relative to healthy controls

Bassem Farid, Paul Yielder, Michael Holmes, Heidi Haavik, Bernadette Murphy

Inter-method comparison of supine and prone measures of leg length inequality

Robert Cooperstein, Marc Lucente, John Lockenour, Terry Payton

Zygapophyseal (Z) Joint Crepitus Before and After Spinal Manipulation: A Pilot Study

Gregory Cramer, Matthew Budavitch, Preetam Bora, Kim Ross

Prefrontal Blood Volume Changes with Neck Positioning

Hercules Grant, Greg Kawchuk
Complementary care in Medicaid patients with long-term physical disabilities: a pilot program in the state of Colorado
Mark Pfefer, Stephen Cooper, Jennifer Boggess

Patient Safety Culture Evaluation of Chiropractors in Three Canadian Provinces: preliminary findings
Katherine Pohlman, Silvano Mior, Martha Funabashi, Diana DeCarvalho, Mohammed El-Bayoumi, Bob Hiag, Kimbalin Kelly, Darrell Wade, Maeve O’Beirne, Sunita Vohra

Active and inactive spondylolysis at L5: A case report
Terry Yochum, Alicia Yochum

Profiling chiropractic practices and their patients: Ontario chiropractic observation and analysis study (O-COAST)
Silvano Mior, Jessica Wong, Peter Beliveau, Andres Bussieres, Simon French

Spinal Pains and Comorbid Conditions in the Adult US Population: Data from the 2011-2013 National Health Interview Survey
Scott Haldeman, Haiou Yang, Bart Green

Attitudes towards chiropractic: A survey of XX (location) midwives
Carol Ann Weis, Gloria Cheung, Laurence Dion, Jennifer Garven, Meghan Robinson, Suzannah Bennett, Jason Busse

Development, evaluation and implementation of an Interprofessional Collaboration Competency Framework - experiences from an inner city teaching hospital
Deborah Kopansky-Giles, Ashley Skiffington, Norman Dewhurst, Lori Whelan, Fok-Han Leung, Ellen Newbold, Lindsay Beavers
POSTER RECEPTION

5:30-6:30pm Friday, March 17, 2017
International Foyer, Washington Hilton Hotel

- Experience the poster exhibition in a relaxed atmosphere with complimentary refreshments.
- Learn about new innovations in the fields of chiropractic research.
- Be inspired by the latest research and have a chance to meet the world's leading chiropractic researchers.
POSTER PRESENTATIONS

Effects of a single session of chiropractic care on voluntary activation and maximum voluntary contraction of the biceps brachii
Mat Kingett, Kelly Holt, Imran Khan Naziri, Rasmus Wiberg, Michael Lee, Heidi Haavik

Validation of a non-invasive, non-ionizing technique for three-dimensional measurement of the lumbar spine
Terry Koo, Wingchi Edmund Kwok

The use of infrared cameras to detect pain: Determining the specificity and sensitivity
Bon Kwan, Shari Wynd, Aladin Boriek, Jack Fulkman

Differences between neuromechanical responses to spinal manipulation and mobilization: a crossover randomized trial
Arnaud Lardon, Isabelle Page, Francois Nougareau, Martin Descarraux

Opinions of sports clinical practice chiropractors, with sports specialty training and those without, about chiropractic research priorities in sports health care: a centering resonance analysis
Alexander Lee, Kaitlyn Szabo, Kirstie McDowell, Sydney Granger

Chiropractic Care Alters Nociceptive Processing at Spinal and Supraspinal Levels
Dina Lelic, Imran Khan, Niazi, Kelly Holt, Asbjorn Mohr Drewes, Heidi Haavik

Developing student experience: Creation of a therapy practice lab
Marc Lucente, Sean Norkus, Mark Murdock, John Lockenour

Instrument-assisted soft tissue mobilization increases ROM in traumatized ankle: a case study
Inajara Maciel, Danilo Messa da Silva, Daniel Facchini

Quality assessment of case reports on a technique website
Dana Madigan, Jerrilyn Cambron

Associations of blood lead and cadmium levels with bone mineral density in men aged 50 and older
Dana Madigan, Yuri Korvatko, Mary Turyk

Chiropractic management of cervical degenerative spondylolisthesis: a case report
Celilia Maguire

A relationship between undergraduate science courses and success in the first year of a chiropractic program and on national board of chiropractic examiners, part I
Carissa Manrique, Gene Giggelman

Perianal abscess mimicking levator ani syndrome: A case report and approach to the differential diagnosis of anorectal pain
Paul Mastragostino, Alex Lee, Patrick Battaglia

Comparison of final practical exam scores between students who prepared for a multiple choice exam and students who prepared for a fill-in-the-blank exam
Chris Major

Correcting thoracolumbar adolescent idiopathic scoliosis using a new 3D bracing approach: a case study.
Jeb McAviney, Juan Du Plessis

The use of rehabilitation exercises as an adjunct for patients with chronic neck pain
Abigail McGuiness, Adrian Hunnisett, Christina Cunliffe
POSTER PRESENTATIONS

Thoracic musculoskeletal pain presenting with myocardial infarction symptoms
Craig Mencel

Using OSCE quality assurance to train the raters
Heather Miley, Robert Tatum, Jamie Bedle, Doug Lawson

A critical integrative review of manual therapy use for headache disorders: Prevalence, profiles, predictors and communication
Craig Moore, Jon Adams, David Sibbritt

Using the Personal Background Preparation Survey to identify the at-risk student in the first year of a Doctor of Chiropractic program
John Mrozek

Dishabituation of central nervous system to tonic pain following chiropractic care - a standardized low resolution brain electromagnetic tomography (sLORETA) based study
Muhammad Samran Navid, Dina Lelic, Imran Khan Naziri, Kelly Holt, Asbjorn Mohr Drewes, Heidi Haavi

Management of Fibromyalgia in Female Veterans presenting to a VHA Chiropractic Clinic: A Retrospective Case Series
Jason Napuli, Karim Ali, Ryan Diana

A descriptive study of Sports Chiropractors

Incorporation of motivational interviewing into a pre-clinic course
Lia Nightingale

A picture is worth a thousand words: Using a visual aid in diagnosing during clinical competency testing.
Brett Nielsen

Correlation of body composition and low back pain in a cross-section of United States Veterans
Casey Okamoto, Andrew Dunn, Bart Green, Lance Formolo

Peer review in a Chiropractic College - lessons learned
Tolu Oyelowo

To rest or not to rest: chiropractic management strategies for juvenile osteochondroses, a case series
Harold Olson, Nate Hinkeldey

Rate-dependent anti-nociceptive effect of a spinal manipulative therapy on adult rat chronic peripheral neuropathic pain behavior.
Stephen Onifer, Randall Sozio, Denielle DiCarlo, Qian Li, renee Donahue, Bradley Taylor, Cynthia Long

Ethical issues in chiropractic research
Julie O’Shaughnessy, Martin Descarrauks

Amplitude and speed of Gonstead technique side-posture lumbopelvic adjustments in humans
Edward Owens, Brent Russell, Mike Weiner, Linda Mullin, Lydia Dever, Ronald Hosek, Stephanie Sullivan

Using private EHR databases when public ones do not exist
Edward Owens, Joe Esposito, Ronald Hosek
POSTER PRESENTATIONS

Spinal manipulation increases maximum bite force in healthy individuals  
M. Gorkem Ozyurt, Heidi Haavik, Imran Khan Niazi, Kelly Holt, Oguz Sebik, Gizem Yilmaz, Kemal Turker

The impact of chiropractic Activator adjustments on analytical abilities and reaction time task performance: a pilot study  
Jacob Palmer, Angelo Pierce, Stephanie Sullivan, Mark Amos, Tim Guest, John Markham

Conservative management of recurrent bladder infection and urinary retention in neurogenic bladder: A case report  
Amanda Panuska, Julia Liebach

Manual therapy for the pediatric population: a systematic review.  
Carol Parnell Prevost, Brian Gleberzon, Beth Carleo, Kris Anderson, Katie Pohlman

UQTR's first chiropractic community outreach clinic: a pilot project with important educational and social impacts  
Caroline Poulain, Danica Brousseau, Karina Patenaude

Importance of biofeedback therapy in chiropractic management  
Dewan Raja, Bahar Sultan

An Assessment of Musculoskeletal Medicine Deficiencies in Chiropractic Education: A Survey of Chiropractic Clinical Clerks  
Michael Ramcharan

Altered common drive to cervical multifidus motoneurons in neck pain patients.  
Tim Raven, Lise Lothe, Torsten Eken

A novel method for insertion of intramuscular EMG electrodes in the cervical multifidus muscle.  
Tim Raven, Lise Lothe, Gunnar Sandbaek, Torsten Eken

Resolution of benign paroxysmal positional vertigo using torque release chiropractic adjustments  
Robert Rectenwald, Indira Malpica

Improved Sensory Perception, Fine Motor Coordination and Balance in Patient with Brain Injury Following Lifting Event: A Case Report  
Paula Rhodes, Jon Eberle

Does adding cryostimulation influence the outcomes in conservative care for lateral epicondylitis?  
Nadia Richer, Andree-Anne Marchand, Martin Descarieux

A pilot program to determine if video recording via a tablet computer is an effective teaching tool for coaching chiropractic students as they begin practicing adjusting skills  
Thomas Ring, Virginia Barber

Influence of a Review Sheet on Chiropractic Student's Evaluation & Management (E/M) Coding  
Christopher Roecker, Adam Sergent, Gregory Cofano

Establishing pre-rehabilitation baselines in a post-operative lumbar spine: a case report  
Maria Romano-Young

Mind the gap: Using ExamSoft to reveal hidden learning deficiencies in students with A or B grades in a course  
Kevin Rose, Jesika Babajanian
Chiropractic care of a two year-old diagnosed with gastroesophageal reflux (GER) and a hiatal hernia (HH): A case report

Martin Rosen, Charles Blum, Erin Rosen

Resolution of a left sided 5th phalangeal 2nd inter-phalangeal joint stenosing tenosynovitis (trigger finger) in a 2 1/2 year-old female: A case report

Martin Rosen, Charles Blum, Erin Rosen

Triage and case presentations in chiropractic pediatric clinics: A follow-up with international participation

Drew Rubin, Mary Phillips

Pilot peer mentoring program in an educational setting

Lisa Rubin

Balance, gait, eye movement, and chiropractic care: a case of Chronic Progressive External Ophthalmoplegia

Brent Russell, Ronald Hosek, Stephanie Sullivan, Kathryn Hoiriis

Evaluation of chiropractic lexicon at a chiropractic institution: a cross-sectional survey

Eric Russell

Evaluation of team-based learning implementation in a chiropractic curriculum

Richard Salazar, Georgina Pearson, Miguel Chiusano, Sandra Norton, Christopher Smoley, Katherine Pohlman, William Watson

Chiropractic spinal manipulation improves the onset of contractions of female pelvic floor muscle

Jenna Salmons, Imran Khan Niazi, Rasmus Wiberg, Kelly Holt, Heidi Haavik

Social network analysis of a chiropractor during initial integration into the clinical staff of a rehabilitation hospital

Stacie Salsbury, Robert Vining, Qian Li, Jeb Thurmond, Donna Gosselin, Carl Cooley, Christine Goertz

New, Brief Questionnaires that assess Nonspecific Factors and Pain Outcomes

Michael Schneider, Carol Greco, Lan Yu, Nathan Dodds

Treatment of acute TMJ pain and dysfunction with sacro occipital technique and cranial techniques

Jason Scoppa

Treatment of knee pain in an athlete sprinter with sacro occipital technique and cranial techniques

Jason Scoppa

Abdominal aortic aneurysm and chiropractic manipulation; A literature review

Adam Sergent, Heather Bowyer

Delayed CNS complications from chemotherapy: a case study in delayed neurotoxicity and the importance of it’s identification to successfully manage post cancer survivors

Peter Shipka, Brad Semeniuk

Dental chiropractic interdisciplinary care of three patients with different conditions yet similar symptom presentation: A case series

David Shirazi, Richard Gerardo, Charles Blum

A Survey Of Chiropractic Students’ Perceived Business Preparedness At The Time Of Graduation

David Sikorski, Paul Wanless, Anumapa Kizhakkeveetil, Gene Tobias

Post surgical spine rehab
POSTER PRESENTATIONS

Jerrold Simon
Chiropractic intervention and rehabilitative exercises in an adolescent with a recent incomplete spinal cord injury: A case report
Rebecca Skijan, Kelly Humphries, Melissa Engelston

Developing evidence-based quality standards for chiropractors
Stuart Smellie, Rob Finch

Chiropractic utilization of exercise in the treatment plan: A cross-sectional study
Bryrne Stainsby, Lauren Quattrocchi, Curtis Turner, Julie Yaworski

Research resources in Canada: taking inventory before setting priorities
Kent Stuber, Andre Bussieres, Gerg Kawchuk
A study of patient-centered care in patients with chronic health conditions attending chiropractic practice: outcome of a pilot of the protocol.
Kent Stuber, Mark Langweiler, Silvano Mior, Peter McCarthy

A Multimodal Approach to the Conservative Management of Meniscus Tear
David Sundy, Charles Blum

Do McTimoney chiropractic graduates perceive that they are adequately prepared to start and run a small business?
Judith Townsend, Adrian Hunnisett, Christina Cunliffe

Investigating the Use of Digital Imaging to Assess the Radiology Interpretation Skills of Graduating Chiropractors on the NBCE Part IV Practical Examination
Paul Townsend, Margaret Seron, John Hyland, Michele Fisher, Jungnam Kim

A comparison of spinal manipulation versus mobilization for neck pain: a systematic literature review
Peter Tuchin, Daniel Cadona, Sidney Guines, Lucky Tran, James Zheng

The efficacy of manual therapy in the treatment of adolescent idiopathic scoliosis: A systematic literature review
Peter Tuchin, Grant Edmonson, Steven Tran, Satya Keo, Dwayne Hubbard

Sacral-Occipital Technique (SOT®) care alters frontal, temporal, parietal and occipital brain electrical activity: a randomized controlled clinical study
Daniel Tuttle, Jerry Hochman, Stephanie Sullivan, Ronald Hosek

OMG I’m going to fail! Using online teaching modalities to decrease students’ anxiety and increase learning and preparedness
Michael VanNatta, Thomas Brozovich, Kelly Krell-Mares, Dustin Derby, Michael Tunning

A controlled study of the presence of cervical dysfunction in concussion vs. whiplash patients
Howard Vernon, John Crawford, Lauren Ercolao

Jonathan Vestal, Michael Hall, Michael Longyear

Osteochondritis Dissecans: A rare location
Federico Villafane, Nathaniel Holloway, Norman Kettner

Use of chiropractic as an integrative health care – A literature review
POSTER PRESENTATIONS

Sivarama Prasad Vinjamury, Kunthiri Tantithamma, Cheih-Hsin Chen
The effects of a single session of spinal manipulation on visuomotor adaptation and motor learning.
Kinza Waqar, Imran Khan Niazi, Jens Duehr, Kelly Holt, Heidi Haavik, Nabeel Anwar
Chiropractic management of blast injury related neuropathic pain: a case study
Robert Walsh, Greg Snow

Chiropractic Technique Selective Courses: A Survey of Faculty Perceptions
Paul Wanless, Paige Morgenthal, Anupama Kizhakkeveettill, david Sikorski, Gene Tobias

Crural index influence on parameters of female running gait.
John Ward, Jeff Thompson, Jesse Coats

Barriers to chiropractic use among African-Americans: a pilot study
Rebecca Waters, Jon Wilson, Julia Bartlett, Mark Pfefer

Can a Patient’s Skin Be Used to Display Anatomically Correct Diagnostic Images?
Ian Watts, Pierre Boulander, Michael Feist, Greg Kawchuk

Multifidus and abdominal muscle thickness in women immediately following pregnancy. A pilot study
Carol Ann Weis, Jon Barrett, Samantha Bauer, Amanda Huang, Candice Stewart, Claire Wells, Jane Hiller, Crystal Draper

XX (Location) Chiropractor’s Knowledge of Exercise Guidelines for Pregnant Populations
Carol Ann Weis, Emily Baas, Kristen Ciesla, Carissa Kimpniski

Use of the Medscape "Fast 5" migraine quiz to assess headache knowledge among upper-level chiropractic students
Jon Wilson, Mark Pfefer, William Augello, Taylor Frederick

Responders/non-responders to spinal manipulation: a relation to spinal degeneration and post-treatment changes in disc diffusion.
Arnold Wong, Eric Parent, Sukhvinder Dhillon, Narashima Prasad, Dino Samartzis, Greg Kawchuk

A systematic review on the predictive factors for developing low back pain in healthcare students.
Arnold Wong, Kevin Lam, Jean-Maxime Caron

MRI acquired data analyses before and after a chiropractic intervention in migraine subjects
H. Charles Woodfield, D. Gordon Hasick, Sean Sethi, Karthikeya Subramanian, David Utriainen, E. Mark Haacke

Resolution of adult gastroesophageal reflux disease: a retrospective case series
Pamela Woodward Terranova

The use of activity trackers in the management of lifestyle modification: a pilot study
Shari Wynd, Amber Horsely, Aladin Boriek

Attitude changes towards the basic science courses between 1st, 5th, and 8th trimesters
Shari Wynd, Martha Friesen

Association of lumbar spine stiffness and flexion-relaxation with patient-reported outcomes in adults with chronic low back pain receiving spinal manipulation therapy
Ting Xia, Cynthia Long, Robert Vining, Maruti Gudavalli, James DeVocht, Qian Li, Gregory Kawchuk, David Wilder, Christine Goertz
POSTER PRESENTATIONS

Neck Pain and Cognitive Function in the US Older Adults: Data from NHANES
Haiou Yang, Scott Haldeman, Margaret Nordin

Diagnosis of an ACL tear utilizing ultrasound, MRI and arthrographic correlation
Alicia Yochum, Norman Kettner

Predicting stress and test anxiety among first year chiropractic students
Niu Zhang, Charles Henderson
“Sometimes you gotta create what you want to be a part of.”
—Geri Weitzman, psychologist

At NCMIC Group, one of the ways we have “created what we want to be a part of” is by continually investing in research that supports the chiropractic profession’s growth and advancement.

At NCMIC, we are committed to supporting the chiropractic profession because “We Take Care of Our Own®” for today ... and tomorrow.

Proud sponsor of The NCMIC Louis Sportelli Research Award.

For more information, visit our website at www.ncmic.com.
Goldman speaks widely on the subject of patient-centered care. A strong believer in compassion and empathy, he laments its demise in patient care in the presence of technological advances.

Goldman is a strong advocate of whistle-blowing, believing that it drives patient safety and openness in health care. He is also a promoter of patient engagement and the role of the patient in modern healthcare.

Goldman's keynote address, "Patient Centeredness: The Driver of Tomorrow's Healthcare" will open the plenary session on Saturday, March 18.

Brian Goldman is a Canadian doctor, author, public speaker and radio personality. He is one of North America’s most trusted voices in medicine and is seen as the doctor who thinks like a patient.

Goldman is the bestselling author of The Night Shift: Real Life in The Heart of The E.R. and The Secret Language of Doctors. He also hosts the provocative radio show White Coat, Black Art on CBC Radio.

Goldman is a graduate of the University of Toronto and practices in the Schwartz Reisman Emergency Centre at Mount Sinai Hospital in Toronto, Canada.
Greg Kawchuk is one of the top-rated speakers in the profession today since bursting on the scene over the last year and a half. Speaking to standing ovations at the annual conventions of the Canadian Chiropractic Association, National Chiropractic Leadership Conference and European Chiropractors' Union conventions, Kawchuk will bring his unique and often humorous perspective on science and chiropractic to Washington this March. A chiropractor for 15 years and a full professor in the Faculty of Rehabilitation Medicine at the University of Alberta, Canada, Kawchuk was recently awarded the Research of the Year award by the American Chiropractic Association, a rare honor for a Canadian. If you don’t know him from these accomplishments, you might have heard about his most recent work, creating the first-ever MRI images of joint cavitation and the resulting scientific paper that went viral on a global level. As Kawchuk only speaks at a few occasions each year, we are thrilled to have him on our roster for DC2017. Don’t miss one of the rare chances in 2017 to hear this renowned speaker give his keynote lecture entitled "State of the Art or State of the Old? How Innovation Can Unite The Chiropractic Profession."

Dr Kawchuk's keynote address will be presented on Saturday, March 18.
SESSION E:
IMPACTFUL PERSPECTIVES ON MODERN SPINE CARE

Moderator: Dr. Elisabeth Angier
A private practitioner on the Welsh island of Anglesey, Angier has served as a Council member and as Vice-President of the British Chiropractic Association. She is currently chair of the Chiropractic Research Council, a registered UK not-for-profit organization.

8:30-8:35  Welcome and Premier Sponsor Recognition

8:35-9:15  Keynote Address:
Patient Centeredness: The Driver of Tomorrow's Healthcare

Dr. Brian Goldman

Brian Goldman is a Canadian doctor, author, public speaker and radio personality. He practises at Mount Sinai Hospital in Toronto. He hosts an award-winning current affairs radio series 'White Coat, Black Art' on CBC Radio One. He is also known as a doctor who thinks as a patient. In this keynote address, Goldman will set out how patients drive everything in healthcare and why empathy is putting care back into health care.

9:15-9:45  Keynote Address:
State of the Art or State of the Old? How Innovation can Unite the Chiropractic Profession

Professor Greg Kawchuk

Greg Kawchuk is a chiropractor and full tenured Professor of Biomechanics at the University of Alberta, Canada. With a PhD in bioengineering, Kawchuk shot to fame in 2015 as a result of his research into joint cavitation but has also published widely on the mechanisms that initiate and sustain spinal disorders and how these mechanisms can be clinically applied in practice. In this presentation, Kawchuk will outline the advances in science that make current research applicable to all chiropractors, regardless of their technique or philosophical background.
9:45-10:05  Innovation: How The Millennials Will Ensure Sustainability For Chiropractic

Dr. Michele Maiers

Michele Maiers is the Executive Director of Health Care Research and Innovation at Northwestern Health Sciences University, Minnesota, USA. With a PhD from the University of Southern Denmark, Maiers has published widely on the care of seniors. In 2015, Maiers was recognized by the Huffington Post as one of the Top 10 Health Policy Advances in the U.S. as a result of her work with the American Public Health Association in relation to the over-prescription of opioid analgesics.

10:05-10:25  Neurophysiological Mechanisms That Are Changing Our Understanding of the Chiropractic Adjustment

Dr. Heidi Haavik

Haavik is one of the most popular chiropractic speakers in the world today. Director of Research at New Zealand College of Chiropractic, Haavik is best known for her ground breaking research on the impact of chiropractic adjustments on the brain and central nervous system. In this lecture, she will share her research findings, their role in chiropractic practice and what the future may hold.

10:25-10:45  Collaboration: The Indispensable Element of Modern Spine Care

Dr. Anthony Lisi

Lisi is the Chiropractic Program Director at the U.S. Veterans Health Administration, the largest integrated healthcare and clinical training system in the U.S. He lectures widely to interprofessional audiences and has authored numerous publications in areas including low back pain, spinal manipulation, and the integration of chiropractic services into medical systems. Lisi will discuss the importance of chiropractors being part of collaborative health care teams, identifying the key features critical to their success.

REFRESHMENT BREAK, TRADE STANDS AND POSTER PRESENTATIONS
11:15-11:45  The Annual McAndrews Leadership Lecture

Dr. Christine Goertz

This year’s lecture will be presented by Christine Goertz, Vice-Chancellor for Research and Health Policy at Palmer College of Chiropractic. Receiving her DC from Northwestern Health Sciences University and her PhD from the University of Minnesota, Goertz is among the most respected figures in the chiropractic profession. She serves as a member of the Board of Governors for the U.S. Patient-Centered Outcomes Research Institute (PCORI) and is the CEO of Spine IQ, a not-for-profit organization committed to leveraging the primary spine care practitioner model, quality benchmarking, education and spine care research through the use of clinical data registries.

11:45-12:30  WFC and ACC 2017 Research Awards

Professor Greg Kawchuk & Mr. David O'Bryon

12:45-1:00  Formal Closing of the Conference

LUNCH, TRADE STANDS AND POSTER PRESENTATIONS
2:00-3:30

TRACK 1  RESEARCHERS' FORUM
Various Presenters

TRACK 2  PRACTICE MANAGEMENT
Networking Savvy: How To Become A Master Relationship Builder
Ms. Erin Crotty (Canada)

TRACK 3  CONTEMPORARY TOPICS
Residency Programs in the Veterans Administration
Dr. Anthony Lisi, Dr. Paul Dougherty, Dr. Michael Mestan, Dr. Craig Little (USA)

TRACK 4  CONTEMPORARY TOPICS
Chiropractic: A Safer Approach Than Opioids
Dr. William Meeker, Dr. Gerard Clum and Mrs. Laura Carabello (USA)

TRACK 5  LEADERSHIP
Mentoring For Leadership: Impacting The Profession From Within
Dr. Karen Bobak, Dr. Ashley Cleveland, Dr. Kristina Petrocco-Napuli, Dr. Lisa Bloom (USA)

TRACK 6  CONTEMPORARY TOPICS
Today's Doctor of Chiropractic: Expert Clinician
Dr. Jay Greenstein (USA)

TRACK 7  TECHNIQUE
An Overview of OTZ
Dr. Francis Murphy (USA)

TRACK 8  TECHNIQUE
Essentials of Effective Scoliosis Management
Dr. Jeb McAviney (Australia)
4:00-5:30

TRACK 1  RESEARCHERS' FORUM

Various Presenters

TRACK 2  BIOMECHANICS

Diagnosing Neck Pain: Which Tests Provide Useful Information?

Dr. Nadège Lemeunier (France)

TRACK 3  BIOMECHANICS

Kinesiology From the Feet Up: Supporting Your Body From Nose to Toes

Dr. Kevin Wong (USA)

TRACK 4  CONTEMPORARY TOPICS

Concussion: An Evidence-Based Primer For Clinicians

Dr. Shawn Thistle (Canada)

TRACK 5  CONTEMPORARY TOPICS

Chiropractic and Women's Health: Challenges and Opportunities

Dr. Kristina Petrocco-Napuli (USA)

TRACK 6  CARE MODELS

Evidence-Based Model Of Care: Results From the Global Spine Care Initiative

Dr. Claire Johnson, Professor Scott Haldeman (USA), Dr Deborah Kopansky-Giles, Dr Bart Green (USA), Dr Geoff Outerbridge (Canada)

TRACK 7  TECHNIQUE SHOWDOWN

Dr Arlan Fuhr, Dr David Byfield,
SOCIAL PROGRAM: GALA BANQUET

Saturday, March 18, 2017
Washington Hilton, Washington D.C.

Celebrate DC2017 at the glittering banquet and awards dinner. An unmissable event to bring your experience in Washington D.C. to a close.

Dance the night away with friends old and new at this celebration of the chiropractic profession.