

ACC RAC 2020 CONFERENCE SCHEDULE

Sheraton San Diego Hotel & Marina, San Diego, CA

Developing Leaders: Faculty, Education & Research

(last revised 3/4/20)

Continuing education credits will be available for most sessions. Doctors of chiropractic may earn up to 13.5 hours pending your state board's approval. Continuing education credits are provided through Texas Chiropractic College.

Thursday, March 19

8:00 am - 5:00 pm

ACC Working Group Meetings (closed meetings for ACC working groups)

Presidents –
Admissions/Enrollment –
Assessment and Accreditation –
Chief Academic Officers –
Chief Financial Officers –
Clinic Directors –
Institutional Advancement/Development –
Librarians –
Post Graduate –
Research Directors –
Student Affairs –

6:00 pm - 7:30 pm – Harbor Island Ballroom

Welcome Reception - *Sponsored by Standard Process, Inc.*

All attendees are invited to join

Friday, March 20

7:00 am - 7:50 am – Harbor Island Ballroom

Continental Breakfast

7:50 am - 8:00 am – Harbor Island Ballroom

Opening Plenary Session

Opening of the ACC RAC 2020 Conference – Introductions and Welcome
Bill Meeker, DC, MPH – President, Palmer College of Chiropractic West, ACC Vice-Chair

8:00 am - 9:00 am – Grande Ballroom

The Science of Integrative Health and Medicine

Keynote Speaker: Mimi Guarneri, MD, FACC, ABOIM, President, Academy of Integrative Health and Medicine

Integrative health and medicine is an evidence-based path to achieving the triple aim. Review of the limitations of conventional medicine and explore why a broader perspective is needed. Creating health is an economic strategy that requires a team of multi-disciplinary practitioners dedicated to treating the whole person.

World-renowned Integrative Cardiologist **Dr. Mimi Guarneri** is ranked as #6 of the top 100 Integrative Physicians by Newsmax. She leads her team of experts, as co-founder and medical director, at Guarneri Integrative Health, Inc. in La Jolla, CA at Pacific Pearl La Jolla, the premier center combining state-of-the-art conventional, integrative and natural medicine. Board-certified in cardiovascular disease, internal medicine, nuclear cardiology and integrative holistic medicine, Dr. Guarneri is President of the Academy of Integrative Health and Medicine, Past President of the American Board of Integrative Holistic Medicine. She currently serves on the Founding Board of the American Board of Physician Specialties in Integrative Medicine.

Sponsored by NCMIC Insurance Company

9:00 am - 10:00 am – Grande Ballroom

Transforming Healthcare: Mindsets and the Social Context

Keynote Speaker: Alia Crum, PhD

Placebo effects can produce healing responses in a range of conditions, and yet are often discounted or villainized. In this talk, Dr. Crum presents the science behind a new paradigm that help move us beyond the limited notion of placebo effects as a mysterious response to an inert treatment toward the recognition that ultimately, our mindsets are responsible for their healing effects. Applications for how this research can be applied in the social context of chiropractic care are discussed.

Dr. Crum is an Assistant Professor of Psychology at Stanford University and the Principal Investigator of the Stanford Mind & Body Lab. She received her PhD from Yale University and BA degree from Harvard University. Her research focuses on how changes in subjective mindsets—the core assumptions we make about things and processes in the world—can alter objective reality through behavioral, psychological, and physiological mechanisms. Dr. Crum’s research aims to understand how mindsets can be consciously and deliberately changed through intervention to affect physiological and psychological well-being. Her awards include the NIH New Innovator Award, the Association for Psychological Science’s Rising Star Award, the Phi Beta Kappa Teaching Award and the Dean’s Award for First Years of Teaching at Stanford University.

10:00 am - 10:30 am – Harbor Island Ballroom

Break – Sponsored by Performance Health / Biofreeze / Thera Band

10:30 am - 12:00 pm

Workshops – Sponsored by ChiroTouch

Nautilus #1	Nautilus #2	Nautilus #3	Nautilus #4	Nautilus #5
CLINICAL	RESEARCH	COLLEGE FACULTY	COLLEGE FACULTY	LEADERSHIP
<p>Incorporating motivational interviewing in the clinical encounter</p> <p>The objective of this workshop is to provide an overview of motivational interviewing (MI) and provide a guide to incorporate MI into routine clinical encounters.</p> <p>Jordan Gliedt Sarah Trost</p>	<p>Chiropractic and public health: 2020 research agenda update</p> <p>Public health education, research, and practice are fundamental to improving the health of the public not only on a local or national level, but on a global scale. This workshop continues the chiropractic research agenda cycle, where attendees will receive an update on current public health research in chiropractic and learn skills from public health leaders in the profession about building public health research capacity for the chiropractic profession.</p> <p>Claire Johnson Bart Green Will Evans Richard Brown Michael Haneline</p>	<p>Risk management strategies: teaching and learning spinal manipulation</p> <p>Risk management is a very important topic to educational institutions. To reduce risks for students learning, individuals receiving, and institutions teaching spinal manipulation several strategies exist. This workshop will explore different emerging approaches to manage risk from a broad perspective during the training of spinal manipulation. Our facilitators will lead exercises and share collective insights to promote participants’ abilities to define risk management and identify strategies to reduce risk for institutions and enhance safety for students and patients.</p> <p>David Starmer Shari Wynd Dana Hollandsworth Daryl Ridgeway Paul Osterbauer Lisa DeMarco Mitchell Ludwig</p>	<p>Moving from an administrative to student-centered syllabus: so what?</p> <p>This workshop will explore the process, content, and beliefs, both expected and unexpected, of designing a student-centered syllabus for chiropractic programs. It is based on the initiative of the Curriculum and Faculty Development Team in a Canadian context involving competencies and compliance with accessibility laws.</p> <p>Scott Dunham</p>	<p>Leadership throughout the academic career</p> <p>This session is an exploration of the many facets of leadership and the variety of leadership opportunities that occur throughout the academic career. By identifying early, middle, and late career attributes and motivations, participants will develop personal goals and action steps pertinent to leadership at their professional level.</p> <p>John Stites Michele Maiers Dana Madigan</p>

12:00 pm - 1:30 pm – Grande Ballroom

Lunch - Sponsored by NCMIC Insurance Company

Announcement of the Jerry McAndrews Award

1:30 pm - 3:00 pm

Scientific Contributed Platform Sessions

Nautilus #1	Nautilus #2	Nautilus #3	Nautilus #4	Nautilus #5
CLINICAL	CLINICAL	INTEGRATION	CASE STUDIES	EDUCATION
Moderator: Arnaud Lardon	Moderator: Phil McMaster	Moderator: Nathan Hinkeldey	Moderator: Robert Mootz	Moderator: Dana Hollandsworth
<p>Development and validation of a new treadmill walking test to discriminate between neurogenic, vascular and low back pain related claudication</p> <p><i>Mariève Houle, Julie O'Shaughnessy, Charles Tétreau, Claude-Édouard Châtillon, Martin Descarreaux</i></p> <p>Effect of spinal manipulative therapy on trunk kinematics in patients with chronic non-specific low back pain: a pilot randomized, controlled trial</p> <p><i>Bryan Bond, Chris Kinslow, Adam Yoder</i></p> <p>Lumbar disc nomenclature: a knowledge survey and narrative review</p> <p><i>Stuart McIntosh, Mark Pfefer, Rachel Gilmore, Stephan Cooper, Alexis Tucker, Kyle Koerner, Dakota Vaughn</i></p>	<p>The 1-year prevalence of occupational musculoskeletal disorders in practicing chiropractors in Ontario</p> <p><i>Samuel Howarth, Anser Abbas, Sheilah Hogg-Johnson, Silvano Mior</i></p> <p>Systematic review of telerehabilitation for musculoskeletal disorders commonly encountered in clinical chiropractic</p> <p><i>Frank Bucki, Michael Clay, Hannah Tobiczky, Allison King</i></p> <p>Patients' and interns' expectations of adverse events: data from an electronic active surveillance study at a teaching clinic</p> <p><i>Katherine Pohlman, Martha Funabashi, Gregory Kawchuk, Sheilah Hogg-Johnson, Silvano Mior</i></p>	<p>An evolving model of whole health at one VA facility</p> <p><i>Susan Wenberg, Teri Davis</i></p> <p>Feasibility of a same day access chiropractic clinic in a VA medical center</p> <p><i>Shawn Neff, Samuel Holguin, David Paris</i></p> <p>Expanding chiropractic services within a VA Health Care System: an evaluation of veteran accessibility and provider referrals for care</p> <p><i>Matthew Knieper, Pamela Wakefield, Jason Napuli, Glenn Bub, Jeffrey Kamper</i></p> <p>Patient care access and referral patterns of chiropractic patients in a VA chiropractic clinic: evaluating opportunities for provider education on chiropractic appropriateness</p> <p><i>Matthew Knieper, Pamela Wakefield, Jason Napuli, Glenn Bub, Jeffrey Kamper</i></p>	<p>A case series of cervical spondylotic myelopathy diagnosed in a chiropractic clinic</p> <p><i>Patrick Battaglia, Chandler Bolles, Catherine Moore</i></p> <p>Treatment of lumbar radiculopathy using McKenzie Method Progression in a patient with multiple comorbidities</p> <p><i>Nicholas Hedges, Devon Ackroyd</i></p> <p>Chiropractic-initiated opioid taper of a partial tetraplegic patient</p> <p><i>Robert Walsh, Felisha Truong</i></p> <p>Chiropractic management of a patient with low back pain previously managed by chronic opioid use: a case study</p> <p><i>Ryan Diana, Morgan Price, Gregory Reed, Michael Cole</i></p>	<p>The influence of digital lecture notes on pathology course performance and student satisfaction</p> <p><i>Christopher Roecker</i></p> <p>Chiropractic graduates' perceptions of University Health Clinic (UHC) versus Community Clinic (CC) educational experience</p> <p><i>Navine Haworth, Louise Horstmanshof, Keri Moore</i></p> <p>Cultivating collaborative teams using an interprofessional collaboration competency framework in performance appraisals</p> <p><i>Deborah Kopansky-Giles, Lindsay Beavers</i></p>

<p>The effect of a lumbar chiropractic adjustment on static balance: a randomized control trial feasibility study</p> <p><i>Nicholas Borovsky, Ed Feinberg, Robert Cooperstein</i></p> <p>Manipulative and manual therapies in the management of patients with prior lumbar surgery: a systematic review</p> <p><i>Clinton Daniels, Zachary Cupler, Jordan Gliedt, Sheryl Walters, Nathan Hinkeldey, Alec Schielke, Derek Golley, Cheryl Hawk</i></p> <p>Implementation of the primary spine care model in a multi-clinician primary care setting: initial outcomes</p> <p><i>James Whedon, Andrew Toler, Serena Bezdjian, Justin Goehl, Robb Russell, Louis Kazal, Melissa Nagare</i></p> <p>Magnesium supplementation for migraine prevention: an umbrella review</p> <p><i>Rachel Gilmore, Mark Pfefer, Connor Buckles, Jaden Butcher</i></p>	<p>Strategies to mitigate benign adverse events for spinal manipulation: exploring clinicians and patients perceptions</p> <p><i>Martha Funabashi, Katherine Pohlman, Alex Lee, Anthony Tibles, Silvano Mior, Greg Kawchuk</i></p> <p>Exploring patient and clinician experiences and beliefs about benign adverse responses to spinal manipulation in chiropractic teaching clinics: a cross-sectional survey</p> <p><i>Martha Funabashi, Katherine Pohlman, Alex Lee, Tony Tibbles, Silvano Mior, Greg Kawchuk</i></p> <p>The impact of introducing a posture awareness program in a secondary school environment</p> <p><i>Anna Palmer, Adrian Hunnisett, Christina Cunliffe</i></p> <p>Discomfort during setup of side posture hypothenar/ilium push manipulation</p> <p><i>Simon Wang, Cory Niedjalski, Stephanie Alexopoulos, Sheilah Hogg-Johnson</i></p>	<p>Exploring a supervised machine learning approach to predicting Veterans Health Administration chiropractic service utilization</p> <p><i>Brian Coleman, Samah Jarad, Anthony Lisi, Joseph Goulet, Kelsey Corcoran, Harini Bathulapalli, Cynthia Brandt</i></p> <p>Trends in veteran population access to Veterans Affairs chiropractic services</p> <p><i>Ryan Burdick, Kelsey Corcoran, Anthony Lisi</i></p> <p>Assessing comorbidity rating among veterans receiving Veterans Affairs chiropractic care</p> <p><i>Vivian Ly, Brian Coleman, Joseph Goulet, Kelsey Corcoran, Anthony Lisi</i></p>	<p>Conservative management of neurogenic claudication secondary to congenital lumbar spinal stenosis: a case series</p> <p><i>Ngai Chow, Chadwick Chung, Wenda Dai</i></p> <p>Changes in strength, balance, and endurance in active duty U.S. military personnel with low back pain following chiropractic care</p> <p><i>Robert Vining, Cynthia Long, Amy Minkalis, Maruti Ram Gudavalli, Ting Xia, Lance Corber, Crystal Franklin, Christine Goertz</i></p> <p>Back and chest pain predict bronchitis and emphysema in women: a potential role for chiropractors in chronic respiratory disease management</p> <p><i>Roger Engel, Katie De Luca, Petra Graham, Masoumeh Kaboli Farshchi, Subramanyam Vemulpad, Julie Byles</i></p>	<p>Evaluating the integration of interprofessional collaboration competencies within simulation training</p> <p><i>Minisha Suri-Chilana, Deborah Kopansky-Giles, Silvano Mior, Douglas Campbell, Kari White, Lianne Jeffs</i></p> <p>The use of FSTT™ in teaching force and loading rate control to chiropractic students</p> <p><i>Shari Wynd, Brad Koby, Amy Arton</i></p> <p>Using Force Sensing Table Technology™ (FSTT™) to examine the relation between lung function and treatment force in subjects with Chronic Obstructive Pulmonary Disease (COPD)</p> <p><i>Shari Wynd, Victor Quiroz, Aladin M. Boriek</i></p> <p>Developing student experience: creation of a therapy practice lab - part 2</p> <p><i>Marc Lucente, Sean Norkus, Jeffrey Krabbe</i></p>
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3:00 pm - 3:30 pm – Harbor Island Ballroom

Break – Sponsored by ChiroHealth USA

3:30 pm - 5:00 pm

Scientific Contributed Platform Sessions

Nautilus #1	Nautilus #2	Nautilus #3	Nautilus #4	Nautilus #5
CLINICAL	BASIC SCIENCE	INTEGRATION/ EDUCATION	CASE STUDIES	EDUCATION
Moderator: Lynn Pownall	Moderator: Robert Mootz	Moderator: Bart Green	Moderator: Stuart Kinsinger	Moderator: Katherine Pohlman
<p>Impact of chiropractic care on use of prescription opioids</p> <p><i>James Whedon, Andrew Toler, Louis Kazal, Serena Bezdjian, Justin Goehl, Jay Greenstein</i></p> <p>Effectiveness of non-pharmacological interventions on sleep characteristics among adults with musculoskeletal pain: a systematic review</p> <p><i>Carol Cancelliere, Efrosini Papaconstantinou, Leslie Verville, Gaelan Connell, Jessica Wong, Heather Shearer, Hainan Yu, Anne Taylor-Vaisey</i></p> <p>Non-pharmacological management of soft tissue disorders of the shoulder: a clinical practice guideline from the Ontario Protocol for Traffic Injury Management (OPTiMa) collaboration</p> <p><i>Hainan Yu, Pierre Côté, Jessica Wong, Heather Shearer, Carolina Cancelliere, Anne Taylor-Vaisey</i></p>	<p>Sonographic evaluation of the degree of medial meniscal extrusion during Thessaly test in healthy knees</p> <p><i>John Chinsuk Cho, Lauren Tollefson, Kenneth Reckelhoff</i></p> <p>A palpation method more accurate than the supracristal plane for identification of the L4 spinous process</p> <p><i>Gregory Roytman, Scott Selby, Joe Cantu, Gregory Cramer</i></p> <p>Correlation between lumbar spinal stiffness and muscle activity in healthy adults: an investigation using a novel rolling device</p> <p><i>Isabelle Pagé, Greg Kawchuk</i></p> <p>The immediate effects of cervical spine manipulation on upper extremity ergometer performance to muscle failure in asymptomatic participants</p> <p><i>John Ward, Jesse Coats, Ken Sorrels</i></p>	<p>An interprofessional education activity on “roles and responsibilities”</p> <p><i>Cheryl Hawk, John Mrozek, Renee Bogenschutz</i></p> <p>Chiropractic students' attitudes toward orthopedic spine surgeons and physical therapists: before and after a clinical rotation</p> <p><i>Jesse Cooper, Gary Tam, Katherine Pohlman</i></p> <p>Barriers, facilitators, and motivators to implementing chiropractic care in a multidisciplinary rehabilitation setting: a qualitative analysis using the Theoretical Domains Framework</p> <p><i>Stacie Salsbury, Breanne Wells, Zacariah Shannon, Robert Vining</i></p> <p>Onsite chiropractic services: effects on workers' compensation cost across three sites</p> <p><i>Chad Henriksen</i></p> <p>Experiential learning: ten years of reflection</p> <p><i>Scott Dunham, David Starmer</i></p>	<p>Lessons learned from cases of rib fractures after manual therapy: a case series to increase patient safety</p> <p><i>Daphne To, Anthony Tibbles, Martha Funabashi</i></p> <p>Baseball injury resulting in type III Salter-Harris Fracture of the first proximal phalangeal base</p> <p><i>Jake Halverson, Stacey Cornelson, Quintin Murray, Norman Kettner</i></p> <p>Multicentric reticulohistiocytosis is presenting to a chiropractor: a case report</p> <p><i>Brynne Stainsby, Sophia da Silva-Oolup</i></p> <p>Sacro Occipital Technique (SOT) and cranial treatment for hemicranium continua: a case report</p> <p><i>Charles Blum</i></p>	<p>Factors affecting self-perceived confidence in clinical and patient communication skills among chiropractic students: a qualitative analysis</p> <p><i>Cheryl Ng, Min Lei Chong</i></p> <p>Impostor phenomenon among U.S. chiropractic students</p> <p><i>Kelly Kimball, Christopher Roecker, Katie Hoyt</i></p> <p>Changing perceptions on Paper-Based Testing (PBT) vs. Computer-Based Testing (CBT)</p> <p><i>Xiaohua He</i></p> <p>The relationship between in-class polling participation and pathology course performance</p> <p><i>Christopher Roecker, Kara Shannon, Zacariah Shannon</i></p>

<p>Secondary analysis of pain occurrence data collected via SMS text message during a pragmatic, clinical trial comparing usual medical care plus chiropractic care to usual medical care alone for low back pain</p> <p><i>Zacariah Shannon, Cynthia Long, Robert Vining, Christine Goertz</i></p> <p>Self-perceived recovery in patients participating a multi-arm randomized clinical trial. Is the outcome already determined? A pilot study</p> <p><i>Corrie Myburgh, Greg Kawchuk, Julie Fritz</i></p> <p>Cost-effectiveness of spinal manipulation, supervised rehabilitative exercise, or home exercise for spinal pain in the United States using an individual participant data meta-analysis approach</p> <p><i>Brent Leininger, Gert Bronfort, Roni Evans, Karen Kuntz, James Hodges</i></p> <p>Description of chiropractic treatment in a pragmatic clinical trial conducted in Department of Defense military treatment facilities: a secondary analysis of ICD and CPT codes</p> <p><i>Anna-Marie Schmidt, Zacariah Shannon, Cynthia Long, Robert Vining, Christine Goertz</i></p>	<p>Visual perception of patient attributes modulates spinal manipulation dose characteristics</p> <p><i>Steven Passmore, Quinn Malone, Brian MacNeil, Elizabeth Sanli, David Gonzalez</i></p> <p>Quantification of the forces applied and transmitted through the body during thoracic spinal manipulation in asymptomatic adults</p> <p><i>Joshua Thomas, Tom Murphy, Steve Tran, Sam Howarth, David Starmer, Martha Funabashi</i></p> <p>Factors influencing the transmission of force in human tissues during manual therapy: a crossover study</p> <p><i>Jérémie Mikhail, Martha Funahashi, Martin Descarreaux, Isabelle Pagé</i></p>	<p>A systematic review of observational studies on the prevalence and locations of musculoskeletal pain in residential aged care</p> <p><i>Katie de Luca</i></p> <p>A systematic review of complementary and integrative health interventions for patients with chronic musculoskeletal pain and comorbid mental health conditions</p> <p><i>Danielle Parrilla, Jason Napuli, Sheryl Walters</i></p>	<p>SOT cranial therapy with light therapy for the treatment of trochlear nerve palsy and right eye concomitant deviation</p> <p><i>Rachel Hamel</i></p> <p>Non-cardiac chest pain: a case for multidisciplinary collaboration with the emergency department</p> <p><i>Cael Halfman, Nathan Hinkeldey, Heather Meeks</i></p> <p>First messages matter: aligning evidence with practice</p> <p><i>Alyssa Troutner, Lindsay Rae, Brooke Morphet</i></p>	<p>Empathy and perceived stress of second year chiropractic students</p> <p><i>Lia Nightingale</i></p> <p>How coping strategy affects chiropractic students' perceived stress</p> <p><i>Niu Zhang, Charles Henderson</i></p> <p>Resilience, perceived stress, quality of life and demographic assessments in chiropractic students: a survey based measurement</p> <p><i>Michelle Drover, Tracey Littrell, Kira Baca, Dustin Derby</i></p>
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5:00 pm - 6:00 pm – Harbor Island Ballroom

Reception and Scientific Contributed Poster Presentations

Meet and mingle with other scientific researchers, educators, clinical practitioners and leaders in the profession. All attendees invited to attend the poster presentation reception.

Posters listed in alphabetical order (last name of first author).

Impact of Force-Sensing Table Technology (FSTT) on student's self-perceived confidence when learning cervical techniques

Daniel Armstrong, Alex Naquin, Dana Hollandsworth

Risk factors for pinguecula: a narrative review

Lisa Barker, Barclay Bakkum, Cynthia Chapman

Diagnosing acetabular labral tears with hip traction sonography: a case series

Jessica Billham, Stacey Cornelson, Amy Koch, Mero Nunez, Patricia Estrada, Norman Kettner

Sacro Occipital Technique (SOT) and cranial treatment for a patient presenting with dysautonomia possibly secondary to vagal nerve entrapment in the jugular foramina: a case report

Thomas Bloink, Charles Blum

Sacro Occipital Technique (SOT) and dental co-treatment of a patient with increased eye pressures and related dysfunction: a case report

Thomas Bloink, Charles Blum

Sacro Occipital Technique (SOT) and dental co-treatment of a pediatric patient with increased eye pressures while receiving orthodonture care: a case report

Thomas Bloink, Charles Blum

Whiplash-Associated Disorders (WAD) and Temporomandibular Joint Disorders (TMD): a review of the literature

Charles Blum

Making a case for genomics in chiropractic education

Kara Burnham, Leslie Takaki

Chronic abdominal post-operative pain: a case for conservative management

Bianca Catalano, Nathan Hinkeldey, Heather Meeks, Brittnei Scott

Manipulation force characteristics and clinical outcomes of prone thoracic spinal manipulation in chiropractic students with neck pain: a pilot study

Grand Choi, Martha Funabashi

Nerve flossing in a patient with chronic radiculopathy who previously failed to respond to manipulation alone

Michael Cole, Gregory Reed, Ryan Diana

A descriptive analysis of US chiropractic teaching institutions' clinical application of patient reported outcome measures and screening tools for low back pain patients

Jesse Cooper, Jordan Gliedt, Katherine Pohlman

Non-Hodgkins Lymphoma mimicking symptoms of typical low back disorder

Stephan Cooper, Mark Pfefer, Alexis Tucker, Jaden Butcher

Common and uncommon muscle injuries identified in chiropractic practice utilizing diagnostic ultrasound

Stacey Cornelson, Ashley Ruff, Norman Kettner

Investigating the link between skeletal muscle substance P levels of rats and quantitative ultrasound image texture utilizing multiple regression: an exploratory pilot study

Felipe Coutinho Kullmann Duarte, Michael Behr, Jeremy Simpson, John Z. Srbely, Dinesh Kumbhare

Association between pregnancy-related hormones and lumbopelvic pain characteristics in pregnant women: a scoping review

Catherine Daneau, Mariève Houle, Mégane Pasquier, Stephanie-May Ruchat, Martin Descarreaux

Chiropractic care and specific exercises or bracing in adolescent idiopathic scoliosis: a narrative review

Natalie Day, Adrian Hunnisett, Christina Cunliffe

Comparison of the effects of ergonomic chair design on videonystagmography and cognitive performance

Emily Drake, Mark Vettrano, Stephanie Sullivan, Ron Hosek, Michael Longyear, Brent Russell, Shannan Behrens, Sadeddin Yamlikha

Reciprocal inhibition for management of acute shoulder pain: a case report

Nick Dugger, Nathan Hinkeldey, Tanner Morris, Michael Tunning

Chiropractic management as a treatment in Deformational Plagiocephaly: a narrative review

Karen Forsyth, Adrian Hunnisett, Christina Cunliffe

Assessing the feasibility of implementing a fall risk assessment program in a VA chiropractic clinic

Jonathan Free, Kena McDermott, Anthony Lisi

Manipulation force characteristics for older adults using mannequin simulators

Martha Funabashi, Katie de Luca, Samuel Howarth, Steven Tran, David Starmer, Greg Kawchuk

The effects of cervical adjustment on sensorimotor function in asymptomatic subjects

Igor Generalov, Adrian Hunnisett, Christina Cunliffe

Survey of students' perceptions of the jurisprudence, ethics, and business management course at the Canadian Memorial Chiropractic College

Brian Gleberzon

Four sensory pillars: a teaching model for collaborative patient care

Victoria Graham, Susan Wenberg

Post-operative hip pain: a case of resolution following end range loading and directional preference

Cael Halfman, Nathan Hinkeldey, Harold Olson

A survey of Veterans Health Administration chiropractors and chiropractic clinics

Stephanie Halloran, Todd Kawecki, Anthony Lisi

Cultural competence in chiropractic education: a research study to evaluate the knowledge and perceptions about cultural competence in the doctor of chiropractic program at Life University

Charmaine Herman, Lewis Van Brackle, Nancy DeSousa Williams

Examining the correlates of successful performance on the NBCE's part IV exam

Igor Himelfarb, Bruce Shotts, Andrew Gow

Chiropractic care and rehabilitation combined with myofascial release technique for a patient with a Harrington Rod fusion of C4-T4: a case study

Jesse Hodges, Jason Belcher

Ask your doctor before beginning a new diet: a chiropractic student survey

Gregory Hollandsworth, Vanessa Morales

The effects of 4 weeks of chiropractic care plus physical therapy, compared to physical therapy alone, on motor function in chronic stroke patients: a pilot clinical trial

Kelly Holt, Imran Khan Niazi, Imran Amjad, Muhammad Shafique, Jens Duehr, Heidi Haavik

Report of two cases of familial occipitalization in a father and daughter

Shaveen Jayalathe, Lauren Tollefson, David Mackenzie, Siddharth Patel

Origins of x-ray use in chiropractic: historical qualitative analysis of the first 30 years of radiography advertising in the United States

Claire Johnson, Bart Green

Engaging chiropractic students in basic research measuring Serum IL-1a levels in a Spared Nerve Injury (SNI) rat peripheral neuropathic pain model

Ward Jones, Alexandra Bishop, Clare Arko, Charles Arends, Randall Sozio, Stephen Onifer

Health and wellness characteristics of chiropractic students in a DCP program

Koen Kallop, Sergio (Tony) Fernando, Monica Smith

Literature review on chronic pain, Opioid Use Disorder, their relationship to empathy, and the effect of educational interventions on empathy. Prepared in advance of a research project titled; effect of a chronic pain and Opioid Use Disorder train

Jeffrey Kamper

High resolution sonographic properties of the normal sciatic nerve

Norman Kettner, Stacey Cornelson, Ashley Ruff, Courtney Wells, Roberta Sclocco, Patrick Battaglia, Daniel Haun

Blood Flow Restriction therapy (BFR) for lower extremity injuries: a case series

Amy Koch

Recognizing our hidden faculty: 3-year outcomes of the Health Professional Educators (HPE) program in the Department of Family and Community Medicine at the University of Toronto

Deborah Kopansky-Giles, Judith Peranson

Practical innovation: the development of a physical medicine checklist

Erik Korzen

An empirical study of the chiropractic interns on their perceptions of new HIPAA rules and its effect on their practice

Joe Lintz

Midfoot stress fractures in a patient with recurrent Gout

Marc Lucente, Jeffrey Krabbe

Physical training approaches for chiropractic manipulation skill development: a narrative review

Mitchell Ludwig, Mark Pfefer, Stuart McIntosh, Steven Reece, Jaden Butcher, Rachel Gilmore

Reproducibility of a prescribed adjustive thrust force by chiropractors: a pilot study

Billy Lunsford, Brent Russell, Edward Owens, Ron Hosek

The effects of chiropractic on dizziness: a narrative review

Anna Mackay, Adrian Hunnisett, Christina Cunliffe

Pain and substance use disorder comorbidity and considerations for doctors of chiropractic: a review of the literature

Dana Madigan, Jessy Glaub, William Foshee

The use of an online case-based learning module to facilitate integration of basic and clinical sciences

Christine Major, Kara Burnham, Jenny Nordeen, Kathryn Brown, Chad Lambert, Leslie Takaki

Radiographic reporting errors in an integrated clinic: a case series

Ross Mattox

Evaluation of a research article for quality and relevance in a microbiological lab setting for trimester 2 chiropractic students

Anjum Odhwani, Paula Robinson

Chiropractic multimodal treatment of a grade 2 quadriceps strain

Harold Olson, Michael Tunning

Development and testing of a lumbar spine palpation training device

Edward Owens, Brent Russell, Ronald Hosek, Stephanie Sullivan

Cannabidiol (CBD) for pain management: a scoping review

Colette Peabody, Stuart McIntosh, Mark Pfefer, Rachel Gilmore, Connor Buckles, Jaden Butcher

Personality traits as predictors of academic performance in different types of assessments

Pablo Perez de la Ossa, Elina Pulkkinen, Pablo Martínez, Maike Perello, Marjolijn Mac Conuladh, Adrian Wenban

Establishing laboratory methods for determining the contribution of neuropeptide Y to the pain relief of spinal manipulative therapy

Virginia Salata, Claire Sheridan, Charles Arends, Abigail Vande Hei, Randall Sozio, Cynthia Long, Zacariah Shannon, Bradley Taylor, Stephen Onifer

Improvements of post-herpetic neuralgia following acupuncture treatment in a patient with spinal cord injury: a case report

Alec Schielke, Benjamin Whiles

Prevalence of essential oil usage in chiropractic students: a cohort study

Samantha Schmidt, Paige Schultz-Enwright, Lia Nightingale, Breanne Wells

The impact of lavender and rosemary aromatherapy on test anxiety in chiropractic students: a randomized crossover study

Paige Schultz-Enwright, Samantha Schmidt, Breanne Wells, Lia Nightingale, Steven Torgerud

Sacro Occipital Technique (SOT) and dental treatment of dysfunctional breathing in a child: a case report

Jason Scoppa, David Buck

Practice analysis and changes to the Chiropractic Board of Clinical Nutrition Diplomate

Bruce Shotts, Igor Himelfarb, Greg Crawford

Methodologic challenges of using Medical Expenditure Panel Survey (MEPS) data for chiropractic health services research

Monica Smith, Krista Ward

The effects of the side bridge exercise on immediate internal rotation range of motion of the hip

Amanda Star, Mikaela Buchli-Kelly, Simon Wang

Improved lower extremity function after implementation of chiropractic and rehabilitation care in a 25-year-old male with Diffuse Axonal Brain Injury (DABI): a case report

Sheldon Stuckart, Leslie Reece, Devon Ackroyd

A model for chiropractic research designed to move the healthcare dialogue toward a development-of-health model

Stephanie Sullivan, Brent Russell, Ronald Hosek, Edward Owens, Jr., Angela Seckington, Emily Drake

Management of Carpal Tunnel Syndrome with conservative multimodal therapy: a prospective case series of outcomes with concurrent wrist and cervical manipulation

David Taylor

Dual task exercises and chiropractic care increased patient functional abilities post Traumatic Brain Injury (TBI)

Mark Thenhaus, Devon Ackroyd

The "5 A's instruction:" a novel approach to teaching the evidence-based practice to chiropractic students

Natalia Tukhareli

Identifying different types of headaches: signs and symptoms, causes, and current treatment recommendations

Anna Walden

Evaluating medical expenditure panel survey data for the association between chiropractic utilization and opioid prescriptions among people with back and neck pain

Krista Ward, Monica Smith

The effect of cervical spine adjustment on elderly patient's grip-strength

Adrian Wenban, Pablo Perez de la Ossa

Cost comparison of chiropractic care for patients with acute and sub-acute low back pain

James Whedon, Serena Bezdjian, Patricia Dennis, Vivi-Ann Fischer, Robb Russell

Can factors in the educational environment influence cognitive appraisals of control and value in chiropractic medical students?

Michael Wiles

Correlation of mBESS scores and Sorensen's test scores: an investigational study

Richard Yu, Alexis Campos, Robert Cooperstein, Ed Feinberg

6:00 pm - 7:30 pm				
Workshops				
Nautilus #1	Nautilus #2	Nautilus #3	Nautilus #4	Nautilus #5
CLINICAL	RESEARCH	COLLEGE FACULTY	COLLEGE FACULTY	LEADERSHIP
<p>Stabilizing the neuroimmune system with chiropractic, functional medicine, and nutrition</p> <p>The concept of functional neurology views the nervous system as a moldable, changeable entity that can be affected in its function through every system and various types of environmental stimulation. This workshop reviews the systems biology of the interconnected systems with an emphasis on the nervous system, immune system, and GI system. It offers personalized lifestyle and nutritional therapies to support these systems using a chiropractic and functional medicine operating system.</p> <p>Ryan Lazarus</p>	<p>A session with CARL: fostering the fundamental resources to support early career researchers</p> <p>This workshop will showcase a mini-CARL program structured for: clinicians considering alternative research pathways, academics responsible for empowering students, and professional leaders entrusted with comprehensively developing regional associations. Emphasis will be placed on the importance of mentorship and leadership.</p> <p>Katherine Pohlman Martha Funabashi</p>	<p>A contemporary approach to fall prevention</p> <p>This workshop will focus on the current recommendation in fall prevention and the development of a new aged approach to mitigate fall related injury.</p> <p>Trevor Shaw Adam Sergent</p>	<p>Identifying and addressing patient mistreatment of trainees using the ERASE framework for a chiropractic setting</p> <p>This workshop will describe and present a method to address patient mistreatment of trainees using the ERASE framework, a step-wise, standardized approach to empower physician-educators to recognize and respond to trainee mistreatment by patients. Facilitators will utilize case examples in small group discussions to practice the ERASE framework and encourage faculty to address patient mistreatment in real time.</p> <p>Vivian Ly Stephanie Halloran</p>	<p>Chiropractic education within the higher ed landscape: a leader's perspective</p> <p>This workshop will provide for leaders and aspiring leaders in chiropractic education, an overview of higher education, an understanding of key issues and risk factors facing colleges and universities, with an emphasis on implications for chiropractic education.</p> <p>John Scaringe Deb Bushway</p>

Saturday, March 21

7:00 am - 7:50 am – Harbor Island Ballroom

Continental Breakfast

- *American Public Health Association – Chiropractic Health Care Section meeting
- *Women in Chiropractic meeting – “Understanding the need for diversity: increasing women’s role in chiropractic research” with Dr. Katie Pohlman & Dr. Katie DeLuca

8:00 am - 9:30 am – Grande Ballroom

Plenary Session

Chiropractic for health and wellbeing: new research to combat the pain management crisis

Keynote Speakers: Gert Bronfort, DC, PhD & Roni Evans, DC, MS, PhD

The US is in the midst of an unprecedented pain management crisis, with chronic pain impacting more Americans than heart disease, diabetes, and cancer combined. With mounting evidence of ineffectiveness and harms of commonly used drug treatments, including opioids, there have been urgent calls for non-pharmacological approaches for pain. Chiropractors are among the most common providers of non-drug treatments in the United States and are ideally suited to be prominent front-line providers for musculoskeletal pain conditions. This presentation will highlight new and ongoing research focused on alleviating

the current pain management crisis. This includes studies of chiropractic's role in preventing acute musculoskeletal pain from becoming chronic, as well as how chiropractic can help pain sufferers engage in adaptive and positive health behaviors to enhance their overall wellbeing.

Dr. Bronfort, is a professor at the Center for Spirituality & Healing's Integrative Health & Wellbeing Research Program at the University of Minnesota. She has more than 30 years experience conducting randomized clinical trials investigating noninvasive conservative treatments including exercise and self-care strategies for spine pain conditions. She's successfully completed many full-scale, randomized clinical trials with high compliance and long-term follow-up rates and has been a longstanding member of the Cochrane Back Review Group Editorial Committee, and co-author of several systematic reviews of the literature focused on spinal pain. This work has provided her with a comprehensive understanding of the status of the research in the low back pain field, and a critical perspective regarding gaps and weaknesses. She has an extensive background in rigorous study design and collection of pain related biological, psychological and social data. Her research has also contributed to the understanding of spinal biomechanics.

Dr. Evans has over 20 years of experience conducting team-based interdisciplinary research, including randomized trials of complementary and integrative health (CIH), including mind and body interventions (spinal manipulation, self-management, exercise, and mindfulness). Currently, she is the Director of the Integrative Health & Wellbeing Research Program supporting the efforts of a very prolific, multi-disciplinary team. She has a strong track record of study design, project coordination, and implementation and have experience with both quantitative and qualitative methods and was recently the PI of a pilot feasibility study investigating mindfulness and behavioral approaches to enhance physical activity in older adults in community-based settings which has successfully transitioned to a larger randomized trial.

9:30 am - 10:30 am – Harbor Island Ballroom

Scientific Contributed Poster Session & Break – Sponsored by Visual Outcomes

-See previous listing

10:30 am - 12:00 pm

Workshops

Nautilus #1	Nautilus #2	Nautilus #3	Nautilus #4	Nautilus #5
CLINICAL	THEME	COLLEGE FACULTY	COLLEGE FACULTY	LEADERSHIP
<p>Impacting women's health through wellness, prevention, and pain management across the lifespan</p> <p>This workshop will discuss the current landscape of women's health that can be managed by chiropractors, including the impact chiropractors practicing evidence-informed, patient-centric care for female patients around the world. Attendees will learn tools for a variety of women's health issues that they can apply immediately in their practices.</p> <p>Katie de Luca Katherine Pohlman Claire Johnson Kristina Petrocco-Napuli</p>	<p>Building effective mentoring relationships</p> <p>The lack of a standard pathway for doctors of chiropractic to train as clinician scientists makes mentoring relationships vital for early career researchers. This workshop will facilitate both mentors and mentees in building more effective mentoring relationships.</p> <p>Anna-Marie Schmidt Zacariah Shannon Brian Coleman Stephanie Halloran Martha Funabashi Brent Leininger Cynthia Long Robert Vining Anthony Lisi Roni Evans</p>	<p>How to create a vertically integrated student learning module</p> <p>This workshop will assist attendees in developing the framework for a case-based student learning module that integrates basic and clinical sciences through collaboration with colleagues in other departments and/or disciplines.</p> <p>Kara Burnham Kathryn Brown Chad Lambert Christine Major Jenny Nordeen</p>	<p>Understanding the skills chiropractic students need for interdisciplinary training</p> <p>Workshop attendees will learn how to identify and train the skills your students need for interdisciplinary training rotations.</p> <p>Jeff King Nathan Hinkeldey Jude Miller</p>	<p>Developing the critical thinking skills of your team using question-centric coaching</p> <p>The purpose of this session is to provide participants with tools to dramatically improve team and personal performance, exert less effort than they are investing today, and ensure the sustainability of the improvements they make. Participants will learn how to utilize the power of questions to develop the critical thinking skills of their team, creating additional time in their day to reinvest in activities that improve the overall performance of the team.</p> <p>Chick Herbert Mike McCoy</p>

12:00 pm - 1:30 pm - Grande Ballroom

Lunch – Sponsored by Foot Levelers, Inc.

**Announcement of the ACC RAC research paper awards
Scientific paper awards hosted and sponsored by NBCE**

1:30 pm - 2:30 pm - Grande Ballroom

Plenary Session

20/20 Vision for 2020

Keynote Speakers: Lou Sportelli, DC & Sherry McAllister, DC, MEd, CCSP

This plenary session commemorates chiropractic's 125th birthday in 2020. Past obstacles faced to bring chiropractic where it is today and where it needs to go in the future are addressed. Presenters showcase how chiropractors can effectively use marketing collateral to distribute at the community level, while showcasing national marketing campaigns set to achieve greatest opportunity for celebration of 125 years of chiropractic success.

Dr. Sportelli has served in many capacities throughout his 56-year career in chiropractic. He currently serves as President of The NCMIC Foundation, and formerly served for 25 years on the board, including 20 years as President of NCMIC Group Inc, which provides malpractice insurance and financial services to more than 40,000 doctors of chiropractic in the United States and territories. Dr. Sportelli has lectured extensively on ethics, risk management, and incorporating sound procedures to risk-proof your practice. He has a keen interest in patient education, and he has written a consumer book, *Introduction to Chiropractic™*, which has been widely used by doctors of chiropractic across the world. His prior involvement in chiropractic nationally and internationally resulted in his serving as President of the World Federation of Chiropractic (WFC) from 1998-2000, an organization having Non Governmental Organizational (NGO) status with the World Health Organization (WHO), and Chariman of the Board of the American Chiropractic Association (ACA) from 1989-1990, and served on the Board of Trustees of the Blue Mountain Health Systems Hospital Network from 1988-2019.

Dr. McAllister serves as the Executive Vice President for the Foundation for Chiropractic Progress, the national not-for-profit organization showcasing the benefits of chiropractic care across multiple platforms. Dr. McAllister earned her Master's in Education from the University of California East Bay and is a graduate of Palmer College of Chiropractic West, where she served as an Associate Professor. Recently appointed to Forbes Non-Profit Council. She is a frequent guest speaker for National conventions, Corporate Wellness Programs, as well as Business and Healthcare Alliances. Dr. McAllister has served as a Qualified Medical Examiner, Expert Chiropractic Witness for the State of California, and has been in private practice in San Jose since 1996.

2:30 pm - 3:00 pm – Harbor Island Ballroom

Break

3:00 pm - 4:30 pm

Scientific Contributed Platform Sessions

Nautilus #1	Nautilus #2	Nautilus #3	Nautilus #4	Nautilus #5
CLINICAL	CLINICAL	THEME/EDUCATION	CASE STUDIES	EDUCATION
Moderator: Anna Facchinato	Moderator: Breanne Wells	Moderator: Stuart Kinsinger	Moderator: Roger Engel	Moderator: Dana Madigan
<p>Conditions and management of the older chiropractic patient: a secondary analysis of 6,927 adult-patient encounters from Australian (COAST) and Canadian (O-COAST) studies</p> <p><i>Katie de Luca, Sheilah Hogg-Johnson, Martha Funabashi, Silvano Mior, Simon French</i></p> <p>Patient-centered outcomes in clinical pediatric manual therapy research studies: where are we?</p> <p><i>Carol Prevost, Katherine Pohlman, Kris Anderson, Beth Carleo</i></p> <p>Brain responses to respiratory-gated auricular vagal nerve stimulation frequency: neuromodulation of autonomic nuclei</p> <p><i>Norman Kettner, Roberta Sclocco, Ronald Garcia, Harrison Fisher, Jessica Stowell, Kylie Isenburg, Riccardo Barbieri, Vitaly Napadow</i></p>	<p>Decreased neurologic pain signature activation following thoracic spinal manipulation in healthy volunteers and participants with neck pain</p> <p><i>Kenneth Weber, Tor Wager, Sean Mackey, James Elliott, Wen-Ching Liu, Cheryl Sparks</i></p> <p>Frequency of primary neck pain in mild traumatic brain injury/concussion patients</p> <p><i>Jeff King, Michael McCrea, Lindsay Nelson</i></p> <p>Best practice recommendations for chiropractic management of patients with neck pain</p> <p><i>Wayne Whalen, Ron Farabaugh, Cheryl Hawk, Amy Minkalis, William Lauretti, Louis Crivelli, Michael Sheppard, Sheryl Walters</i></p> <p>The commonsense approach to spine-related disability in older adults: part 1 - using mixed methods to find deeper meaning to illness outcomes in</p>	<p>Creating faculty learning communities to foster integration in chiropractic education</p> <p><i>Kathryn Brown, Christine Major, Chad Lambert, Jenny Nordeen, Kara Burnham</i></p> <p>Examining the validity of pre-chiropractic and chiropractic grade point averages for predicting NBCE part I exam scores</p> <p><i>Igor Himelfarb, Bruce Shotts, Andrew Gow</i></p> <p>Leading change: a pilot initiative for improved constructive alignment in a chiropractic educational setting</p> <p><i>Corrie Myburgh</i></p> <p>A scoping review to map research capacity and trends of doctors of chiropractic at the Veterans Health Administration</p> <p><i>Zachary Cupler, Clinton Daniels, Rachel Perrucci, Mario Roybal, Michael Anderson, Michael Barbato, Sheryl Walters</i></p>	<p>Integrative care for acute musculoskeletal pain in a Veterans Health Administration (VHA) Community Based Outpatient Clinic (CBOC): a case series</p> <p><i>Charles Sullivan, Raisa Figueroa, Russell Bishop, Neil Hofbauer, Ti Liu, Robert Walsh</i></p> <p>Development of rhabdomyolysis associated with treatment with a class 4 laser: a case study and review</p> <p><i>Rachel Gilmore, Stuart McIntosh, Mark Pfefer, Jaden Butcher</i></p> <p>Chiropractic management of trismus following inferior alveolar dental nerve block: a case study</p> <p><i>Rachel Gilmore, Mark Pfefer, Robert Moore</i></p>	<p>Service learning at a day laborer program affects chiropractic students' perceptions of community service, underserved populations, and clinical practice</p> <p><i>Donna Odierna, Lori Pino, Farida Savai, David Currie, Monica Smith</i></p> <p>Toward the development of a standardized chiropractic technique program</p> <p><i>Brian Gleberzon, Charles Blum, Christopher Good, Christopher Roecker, Robert Cooperstein</i></p> <p>Perceptions of the present and future role of chiropractic qualifying examinations: a qualitative analysis of an international stakeholder survey</p> <p><i>Bart Green, Claire Johnson, Richard Brown, Douglas Lawson, Charmaine Korporaal, Ricardo Fujikawa, Eric Russell</i></p>

<p>Condensing osteitis of the clavicle: an unexpected finding in a 24 -year-old female</p> <p><i>Tracey Littrell, Michelle Drover</i></p> <p>How chiropractic websites communicate to patients: a descriptive analysis of US chiropractic websites</p> <p><i>Elissa Twist, Judy Bhatti, Katherine Manley-Buser</i></p> <p>On the feasibility of using outpatient clinic data archived in an Electronic Health Records (EHR) system for research</p> <p><i>Ronald Hosek, Stephanie Sullivan</i></p> <p>Using Artificial intelligence (AI) to investigate the effects of chiropractic spinal manipulation on resting state EEG in stroke patients</p> <p><i>Imran Khan Niazi, Sofie Helene Bjørnsrud Jensen, Cecilia Klitgaard Jørgensen, Camilla Winther Nielsen, Kelly Holt, Heidi Haavik</i></p>	<p>a randomized controlled trial</p> <p><i>Michele Maiers, Stacie Salsbury</i></p> <p>The commonsense approach to spine-related disability in older adults: part 2 – a qualitative analysis of illness representations, coping styles, and coping strategies</p> <p><i>Stacie Salsbury, Michele Maiers</i></p> <p>The commonsense approach to spine-related disability in older adults: part 3 – theory generation for a conceptual framework of illness management in spine care</p> <p><i>Stacie Salsbury, Michele Maiers</i></p> <p>Use of the Community Health Environment Checklist to assess a chiropractic college outpatient health center for accessibility for persons with mobility limitations</p> <p><i>Mark Pfefer, Jackson Berg, Kyle Koerner, Rachel Gilmore</i></p>	<p>Evaluating the baseline abilities of second year chiropractic students to identify cardiac and lung sounds at the Canadian Memorial Chiropractic College using high fidelity manikin simulators and standardized human patients: a pilot study</p> <p><i>Brynne Stainsby, Sophia da Silva-Oolup, Dominic Giuliano, David Starmer, Joshua Thomas</i></p> <p>The impact of retrieval practice stakes on knowledge retention</p> <p><i>Ashlee Kates-Ascioti, Chad Warshel, Suellen Christopoulos-Nutting, Amy Simolo</i></p> <p>Assessing cultural competence and the perceived value of cultural training related to diverse patient populations</p> <p><i>Lisa Killinger</i></p>	<p>Hypothenar Hammer Syndrome: a rare occupational injury</p> <p><i>Erika Evans, Norman Kettner, Stacey Cornelson</i></p> <p>Pleomorphic undifferentiated sarcoma of the anterior thigh: a case report</p> <p><i>Ashley Hook, Sophia da Silva-Oolup</i></p> <p>Rectus abdominis muscle tear diagnosed with sonography and its conservative management</p> <p><i>Ashley Ruff, Stacey Cornelson, Austin Panter, Norman Kettner</i></p> <p>Management of pain associated with end-stage arthritis using a class four laser: a case study</p> <p><i>Stuart McIntosh, Mark Pfefer, Rachel Gilmore, Jaden Butcher</i></p>	<p>The National Chiropractic Antitrust Committee preparing the path for chiropractic integration: a historical review</p> <p><i>Bart Green, Claire Johnson</i></p> <p>A curriculum review to identify gaps in evidence-based practice (EBP) competencies within a chiropractic teaching program</p> <p><i>Destiny Yerby McElroy, Dana Lawrence, Katherine Pohlman</i></p> <p>Women’s health and chiropractic: a publication analysis and scoping review to identify research gaps</p> <p><i>Claire Johnson, Bart Green, Katherine Pohlman, Katie de Luca, Kristina Petrocco-Napuli</i></p> <p>Building education research capacity: a qualitative analysis to inform the chiropractic education research agenda</p> <p><i>Claire Johnson, Bart Green, John Mrozek, Michael Wiles</i></p>
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4:30 pm - 4:45 pm – Grande Ballrooms

Closing Comments

**ACC RAC 2021
March 25-27
New Orleans, Louisiana**