The Chiropractic Report

www.chiropracticreport.com Editor: David Chapman-Smith LL.B. (Hons.) November 2011 Vol. 25 No. 6

Professional Notes

Mechanisms of Action of Manipulation in LBP Patients

A study just published in *Spine* is the first to investigate the specific mechanisms of action of spinal manipulation in patients with back pain, and at the same time to show the correlation between those and clinical improvement. Previously many mechanisms of action have been demonstrated, usually in asymptomatic subjects. However the matter of how spinal manipulation works has not been directly linked to clinical improvement and subjected to reliable measurement.

The study is from Julie Fritz, PT PhD, Shane Koppenhaver, PT PhD, Greg Kawchuk DC PhD, Jeffery Hebert DC, PhD et al., an interdisciplinary team of prominent physical therapy and chiropractic researchers in the US and Canada. It concludes that the following two effects or underlying mechanisms of action of spinal manipulation measured in the trial correlate with and may explain improved clinical results:

a. Immediate decrease in global stiffness

continued on page 4

After the Storm – What Have We Learnt?

Dr Richard Brown, both a chiropractor and lawyer with a Doctor of Chiropractic degree from the Anglo-European Chiropractic College and a Master of Laws from the University of Cardiff, is a practising chiropractor in Stroud, Gloucestershire, in the United Kingdom.

He has been President of the British Chiropractic Association (BCA) since 2009, at which time the BCA was in the midst of a prolonged libel court case with Simon Singh, a well-known UK author and scientist.

At the same time the chiropractic profession in the UK was being subjected to an orchestrated attack from sceptics that led to unprecedented media criticism and 718 complaints of professional misconduct against many BCA members and others. It was these two matters, the hard fought legal battle and the unprecedented media and regulatory attacks, that comprised the Storm referred to in the title above.

In 2011 Dr Brown was elected to the Executive Council of the European Chiropractors' Union (ECU).

The following speech, then titled After the Storm: Strategic Objectives in Europe, was given by him last month at the 2011 Conference of the Chiropractic and Osteopathic College of Australasia in Melbourne, Australia.

In it he reflects upon the Storm and lessons learnt, and speaks candidly and eloquently about the shortcomings he sees in the profession and what must be done about them. His direct experience is in Europe, but his words are of relevance to chiropractors everywhere.

The last issue of this Report focused on the importance of the philosophy of chiropractic. This issue brings you a chiropractic leader warning against inappropriate exploitation of that philosophy, and delivering an earnest call for more consistent ethics and maturity in the profession.

THERE HAVE BEEN SEVERAL defining moments in chiropractic throughout its 116 year history. Its turbulent journey from obscurity to becoming a recognised healthcare profession has been characterised by infighting, conflicting ideologies and external persecution. Yet in 2009, events in the UK took a turn which was to consume the British Chiropractic Association (BCA) for two years and force the wider profession to confront key issues that for decades had kept it distanced from its medical counterparts and attracting ridicule from its critics.

Chiropractic in the UK had long faced criticism from its nemesis, Edzard Ernst. The world's first professor of complementary medicine, now retired from the University of Exeter, became the foremost critic of chiropractic, challenging its track record on safety, effectiveness and the making of outlandish claims. Throughout his career, Ernst pursued a damning condemnation of many forms of complementary and alternative medicine, but for reasons that still elude us, reserved his most poisonous venom for the chiropractic profession.

Richard Brown DC, LL.M, FEAC

Main Article *continued from page 1*

Yet the figure whose words were to spark controversy and ignite a firestorm of antipathy against the chiropractic profession was not Ernst, but a young scientist, documentary-maker and author whose brand of pop science had made him a successful and well-connected figure. Simon Singh was someone who had not previously featured on the chiropractic radar, yet his encounter with the profession left an indelible print on the profession not only in the UK, but around the globe.

Co-author with Ernst of *Trick or Treatment; Alternative Medicine on Trial*, Singh promoted his book by writing a piece in the UK's *Guardian* newspaper in which he was critical of a patient information leaflet produced by the BCA called *Happy Families*, which made claims of effectiveness for chiropractic treatment of a number of childhood disorders, including colic, asthma and bedwetting.

Singh claimed that the BCA 'happily promotes bogus treatments' even though there was 'not a jot of evidence'. The BCA was faced with a dilemma. Did it sit by and permit an assault on its reputation and good name, or did it stand up for its members and challenge the criticism? For years, chiropractic had been castigated in a succession of critical articles, but here was a published article which had explicitly named a chiropractic association and had made defamatory comments about it.

The BCA took advice from a leading specialist London libel lawyer, and was told that it had a cast-iron case. A number of meetings took place and the BCA also sought advice from other sources, including leading academics. Faced with a decision to either meet the criticism with silence or confront the issues head on, the BCA wrote to Simon Singh and demanded an apology and a retraction. He refused.

In a move largely unexpected by many, rather than sue the newspaper, the BCA sued Simon Singh personally for libel. In doing so, the BCA began one of the darkest periods in its history; one that was ultimately to cost it financially, reputationally and politically. *(In a preliminary hearing, the UK's leading libel judge, Mr Justice Eady, ruled in favour of the British Chiropractic Association but following an appeal in the Court of Appeal, the decision was overturned, forcing the BCA's withdrawal from the case and leaving it responsible for its and Dr Singh's legal costs.* Ed.*)*

The action galvanised the UK and world media. Never before had the media focused its attention so much on the profession, nor had been given the opportunity to subject it to so much vitriol.

With what they saw as one of their own being hauled over the legal coals amidst claims of an assault on free speech, an army of scientists, sceptics and comedians was mobilised to disgrace, degrade and demolish the chiropractic profession. Cabinet ministers, BBC journalists and erstwhile Members of Parliament also joined the fray, determined to pitch in and use the case to reform what they claimed were Britain's draconian libel laws.

In using the case as a powerful vehicle to promote his Sense About Science campaign, Singh's crusade mobilised a dark force of UK sceptics who suddenly found their raison d'etre, shifting their attention from the fairy tales of homeopathy to the cure-all claims of chiropractors. Following a call to action, an army of PC pilots and laptop lizards began a war which was to lead to one in three UK chiropractors facing formal disciplinary proceedings from its regulator, the General Chiropractic Council.

Using a software package to highlight key words in chiropractors' websites, claims were uncovered relating to everything from haemorrhoids to hair loss, chlamydia to cancer. A total of 718 complaints were made to the General Chiropractic Council (GCC), alleging that chiropractors were misleading the public and exploiting their lack of knowledge over health matters. The GCC faced fitness to practice hearings on a scale previously unknown in the healthcare regulatory world.

Chiropractors were under assault. As the process rumbled on, and Singh crowed from the rooftops following a favourable judgment in the Court of Appeal, one in three chiropractors was facing the misery of prolonged formal regulatory proceedings.

The GCC itself was in an unprecedented situation. Faced with a 1500% rise in complaints, Investigating Committees were assembled to determine whether there was a case to answer. Temporary staff were drafted in to deal with the workload and the solicitors appointed by the GCC to prosecute the complaints found that all their Christmases had come at once. To the surprise of many, seemingly fuelled by the actions of regulatory staff and buoyed by the commissioned report of Dr Gert Bronfort, the Investigating Committee referred most complaints to the Professional Conduct Committee and a mass of hearings were scheduled. As a recipient of three separate allegations I can attest to what was for many a deeply stressful and miserable period for UK chiropractors.

Following a robust legal defence mounted by the BCA on behalf of its members, over 91% of the allegations against chiropractors were dismissed as being not proven. For the first time in two long years, BCA chiropractors could sleep a little easier and move on.

However, the genie was out of the bottle. Once again, questions surfaced as to whether chiropractors were serious,

The Chiropractic Report is an international review of professional and research issues published six times annually. You are welcome to use extracts from this Report. Kindly acknowledge the source. Subscribers may photocopy the Report or order additional copies (.80 cents each, plus shipping – minimum of 20 copies) for personal, non-commercial use in association with their practices. However, neither the complete Report nor the majority or whole of the leading article may be reproduced in any other form without written permission.

Subscription: for rates and order form, see page 8.
- Visit www.chiropracticreport.com
- Call 416.484.9601
- Email us at TCR@chiropracticreport.com

Changes of mailing instructions should be sent to The Chiropractic Report, 203–1246 Yonge Street, Toronto, Ontario, Canada M4T 1W5, telephone 416.484.9601, fax 416.484.9665.
Printed by Harmony Printing Limited, 416.232.1472.

ISBN 0836-144

science-based, evidence-informed healthcare professionals or, as the media portrayed, simply profiteering, pseudomedical quacks? For the BCA and the chiropractic profession, it was time to reflect, learn lessons and define strategic objectives.

The UK experience highlighted a longstanding schism in the wider chiropractic profession between those who seek to deliver evidence-based care and pursue a research driven agenda, and those who seek to uphold and promote the chiropractic of yesteryear; those who cling to an unwavering principle that the vertebral subluxation complex is the cause of illness and disease; and those who decry integrating with mainstream healthcare on the misguided assumption that it will sound the death knell of chiropractic as a 'separate and distinct' profession.

Some may say that we owe Simon Singh a debt of gratitude. His newspaper article, his confrontational stance and his defiance in standing up to UK libel law has all made us, at long last, recognise what, to be fair, many chiropractic researchers have been telling us for years. If we are ever going to get anywhere near being accepted by the wider healthcare community – and, let's face it, for us to move forward as a respected profession we need that acceptance – we need to know who we are, know what we do and know why it works. It is no longer good enough in 2011 for us to expect chiropractic to survive on outdated dogma.

The scrutiny that chiropractic now enjoys as part of the regulated framework in many countries must be matched by a public distancing of historical theories that have long since lost support in any scientific forum and should now be consigned to the annals of history. It is right that we should not forget the past, but not right that we should live in it.

To move the profession forward in Europe, the European Chiropractors' Union (ECU) has embarked on a new strategic project called Vision 2020. Vision 2020 is about looking at where we are today and seeing where we want to be in 2020. It is unashamedly aspirational. Through engaging with the 20 national association member countries of the ECU, we are working to identify what we consider to be our strengths and our weaknesses, seeing what opportunities exist and being alive to the threats to the stability and success of the profession.

Vision 2020 is about European chiropractors being honest with themselves and taking a reality check. What is clear at present is that while some European nations have it all in terms of legislation, credibility, integration and publicly funded university-based education, others have nothing. There are stark contrasts between the haves and the have-nots. To understand these contrasts is to understand attitudes and beliefs, deeply ingrained prejudices and political motivations, both within and outside of the profession.

Yet as was seen in Switzerland throughout the evolution of the chiropractic profession during the twentieth century, the vision and tenacity of even a small number of individuals can influence the direction of travel in the chiropractic profession. The status of Swiss chiropractic as a mainstream medical profession, revered by the public, reimbursed by the state and respected by medical colleagues, is testament to an uncompromising commitment to quality standards of education and practise. Norway and Denmark share similar stories, the latter now considered the world's most striking chiropractic success story with quality education, public access to care and an unrivalled commitment to research.

What has become immediately evident during the early stages of Vision 2020 is that there is a need for a far clearer identity for the European chiropractic profession. What do we stand for?

Chiropractic, when compared to medicine and dentistry, remains in a period of teenage angst. It demands to be listened to, yet at times struggles to articulate itself in a way that mainstream healthcare will tolerate. It speaks in its own language, yet often fails to realise that others in healthcare may not comprehend. It insists on acceptance, yet sometimes displays an inflexibility that seemingly shuns the notion of true integration.

There is currently a blurred image of the profession and an unclear scope of practice that results in inconsistent perceptions and mixed messages. The images of chiropractic from one European country to another could not be more different. Scientists and subluxationists have carved up the continent and the great divide is reflected in pockets of great success and pockets of abject failure. While some countries have embraced the need to focus on achieving credibility through research and integration, the stability of others is being jeopardised by groups wishing to stay distanced from the concept of evidence-based care and lifelong learning.

The events of the past two years have exposed a blind adherence to outdated principles amongst a small but significant minority of the profession. Mindful of the adage that it's the squeaky wheel that gets the grease, the vocalism of this group has ensured that chiropractic is characterised by its critics as unscientific, unsafe and slightly wacky. Claims that the vertebral subluxation complex is the cause of illness and disease have persisted despite the three UK educational establishments advising the GCC that no evidence of acceptable quality exists to support such claims.

So why do we find graduates of the Anglo-European College of Chiropractic (AECC) and Welsh Institutes of Chiropractic (WIOC) manning Subluxation Stations in supermarkets and shopping malls and advising their unwitting patients that spinal decay is the deadly consequence of uncorrected subluxation? Why is it that the graduates of some of the Europe's most established chiropractic programmes decide that surface electromyography and similar electrical gadgetry is the default diagnostic technique and the preferred method of securing the compliance of vulnerable patients? Why is there a surge in practice building seminars promising financial reward and a utopian work-life balance?

Sadly, with the stark realisation that the cake is being sliced ever more thinly, combined with student debt and escalating living costs, it is unsurprising that new (and not-so-new) graduates are seeking innovative ways of making a living. Inevitably, however, innovation for some means sailing closer to the wind than ethics and professionalism permit. Cue one sceptic feeding frenzy and a panoply of Ernst-fuelled editorials.

The idea that somehow achieving a subluxation-free world will be the panacea for all ills has to be publicly debunked. Moreover, cheap public denouncements of standard medical care whilst at the same time lauding the near-magical effects of the spinal adjustment must stop.

continued on page 7

Mechanisms of Action of Manipulation in LBP Patients

continued from page 1

of the lumbar spine**,** objectively measured at the L3 spinous process by a mechanised instrument and a protocol developed by Dr. Greg Kawchuck a chiropractic scientist at the University of Alberta in Edmonton, Alberta, Canada. The probe of the instrument applied an increasing force from preload 5 Newtons to a final load of 60 Newtons to the patent lying prone.

Measurements recorded were global stiffness (slope of the force displacement curve between 5 N and 60 N) and terminal stiffness (the ratio between the applied maximal force and resultant maximal displacement). Patients with greater immediate decrease in global stiffness after thrust manipulation had better clinical results.

b. Improved recruitment of the lumbar multifidus (LM) muscle, with change in muscle function measured by ultrasound.

The authors describe these as preliminary results, which need confirmation and expansion in further research, but that their study "provides important advances in understanding the hypothesized relationship between SMT and spinal stiffness." Summary points are:

a. **Patients.** This study involved 48 adult patients with low-back pain, with or without leg pain, but no red flags and not treated with spinal manipulative therapy (SMT) within the past four weeks. They received two SMT treatment sessions 3-4 days apart. At these there was pre- and post- SMT spinal stiffness and lumbar multifidus (LM) recruitment assessment. At a third visit after another 3-4 days there was no treatment but further assessments. SMT technique involved posterior-inferior thrusts applied by a DC or PT to each side of the patient's pelvis during each session.

b. **Improvement in LBP.** The major outcome measured was improvement on the Oswestry Disability Index (ODI)

c. **Measurements of spinal stiffness and LM recruitment.** Spinal stiffness was assessed at the L3 level "because motion at the L3/L4 segment is less likely to be painful and does not differ from L4/L5 motion, the level from which the LM measures were taken." Load was applied three times at each assessment, with values averaged.

With respect to LM recruitment, "Thickness of the LM at L4/5 on the patient's more symptomatic side was quantified during submaximal contraction using an ultrasound imaging protocol with documented reliability. Contraction was elicited by the prone patient holding a 1 to 2 kg weight and lifting the contralateral arm approximately 5 cm, resulting in approximately 30% maximal voluntary LM contraction. Image acquisition was performed three times. Measures were averaged to reduce variability."

d. **Results.** There were significant improvements in ODI scores following each treatment session. Stiffness and LM recruitment measurements and analysis suggested:

• "The effects of SMT may be mediated by both immediate global stiffness (GS) changes and enhancement of LM recruitment".

• Level of initial terminal stiffness (TS) influences the ability to improve the LM recruitment with SMT. So does the matter of whether or not the patient falls within a clinical prediction rule (CPR) developed by Fritz et al. and described in the paper.

A further interesting observation by Fritz, Koppenhaver, Kawchuck et al. is that manipulation may be superior to mobilization in reducing spinal stiffness. Previous studies using mobilization "failed to identify an immediate effect of non-thrust mobilization on stiffness". Here the authors found immediate stiffness reduction after manipulation and "a significant relationship between immediate post-SMT stiffness decrease and clinical outcome. This finding may suggest a relationship between stiffness change and outcome for thrust SMT that is not present if nonthrust mobilization techniques are employed."

(Fritz JM, Kopperhaven SL, Kawchuk GN, et al. (2011) *Preliminary Investigation of Mechanisms Underlying the Effects of Manipulation*, Spine 36: 1772-1781)

Other Research

1. **Australia. LBP – A New and Better Classification of Sub-Groups**

Authors in the paper discussed above include Julie Fritz, PT, PhD, of the University of Utah and Jeffery Hebert, DC, PhD, formerly of the University of Utah but now at the School of Chiropractic and Sports Science at Murdoch University, Perth, Australia. Hebert has been a leader in an important new research undertaking – development of a treatment-based classification of patients with back pain.

This replaces traditional pathology-based classifications. It categorizes patients into 1 of 4 sub-groups – those who should primarily receive either spinal manipulation, stabilization exercise, end-range loading exercise or traction. There are now controlled trials showing much better results when patients are treated according to these subgroups.

Hebert and colleagues, including Bruce Walker, DC, MPH, DrPH also of Murdoch University and Editor for the online journal Chiropractic and Manual Therapies, have just summarized this new approach to classification and the evidence in support. This is in a paper titled *Sub- grouping Patients with Low-Back Pain: A Treatment-Based Approach to Classification* published on August 23 in the online version of Sports Health: A Multidisciplinary Approach, the official journal of the American Orthopaedic Society for Sports Medicine.

It can be found at http://sph.sagepub.com/content/early/2011/08/20/1941738111415044 This is clear and concise with excellent opening details on the prevalence and cost of LBP in Australia, the UK and the USA. Note these challenging points:

a. The authors suggest that "the application of spinal manipulation based solely on a paradigm of biomechanical faults and/or spinal misalignments is inappropriate" now that subgroup criteria have been established for patients best suited to each of manipulation, stabilization, end-range loading exercise, and traction.

b. "Manipulation is more effective than mobilization." However "the identification of the proper patient subgroup is more important to a successful outcome than choosing the right manipulative technique".

c. In one recent trial from the University of Utah group, in which clinical success was defined as a 50% improvement in Oswestry Disability Index score, less than half the back pain patients experienced clinical success with spinal manipulation – but success rate increased to 95% in patients meeting at least 4 of the 5 criteria for the manipulation subgroup gained from history and physical examination.

d. These results have been supported by a further trial from the University of Utah group, which also shows that the clinical benefit of receiving matched treatment according to subgroup classification remained at 6 months follow-up.

The January 2011 issue of The Chiropractic Report featured the successful new spine care program developed by Dr Ian Paskowski and colleagues at the Jordan Hospital in Plymouth, Massachusetts. An important aspect of that program is adaptation and use of the classifications and clinical decision rule of Hebert et al. as in Figure 1.

(Hebert JJ, Koppenhaver SL, and Walker BF (2011) *Sub-grouping Patients with Low-Back Pain: A Treatment-Based Approach to Classification,* Sports Health: A Multi-Disciplinary Approach. Published online August 23, 2011 as doi: 10.1177/1941738111415044.)

2. US and Canada. LBP- Comparative Effectiveness of Exercise, Acupuncture and Spinal Manipulation

In July 2011 *The Chiropractic Report* reviewed a new Cochrane systematic review of the evidence for SMT for chronic LBP by Dutch chiropractor Sydney Rubinstein, DC PhD and co-authors. Here now is a new systematic review of the evidence of comparative effectiveness of three common non-surgical approaches to management of patients with chronic LBP – exercise, acupuncture and spinal manipulation.

Authors include Christopher Standaert, MD, from the Departments of Rehabilitation Medicine, Orthopaedic Surgery and Neurological Surgery, University of Washington, Seattle and Mark Erwin DC PhD, from the Division of Orthopaedic Surgery, Toronto Western Hospital, University of Toronto, Canada.

This study, published prominently in *Spine*, makes clearly the point that many of the trials included in reviews of spinal manipulation not only involve very different skill levels but also mobilizations and other manual treatments that are not spinal manipulation at all. Points are:

a. There is continuing chaos in the management of patients with chronic LBP and "a critical need to identify which treatment options optimize clinical utility and cost-effectiveness for specific patients".

b. For each of three commonly used treatments, namely exercise, SMT and acupuncture, "there are significant variations in how they are defined, applied or practiced as well as in the skill level and training of providers".

c. Overall there is no strong evidence favouring any specific non-operative treatment approach for patients with chronic LBP – as to effectiveness or cost effectiveness.

d. There is more evidence for SMT and structured exercise than acupuncture. Both "appear to offer equivalent benefits in terms of pain and functional improvement for those with chronic LBP with clinical benefits evident within 8 weeks of care. However, the level of evidence is low".

e. The lack of evidence of clearly superior benefit of SMT may be a reflection of the many different approaches and skill levels used in the trials as well as the mixture of many different subgroups of patients – rather than limitation in the effectiveness of skilled manipulation for appropriate patient populations. Good quotes on the first problem include:

- In the trials and the reviews "what is referred to as SMT may include high-velocity thrust techniques, manual mobilization, or other specific techniques or even broad treatment approaches such as osteopathy, which cloud the actual treatment effect of specific manipulative techniques".
- "…many studies of SMT use variable approaches that are termed "manipulation," often delivered with co-interventions or within the framework of a specific method of practice. In a more defined sense, SMT is a highly specific manoeuvre that requires considerable training and experience."

(Standaerd CJ, Friedly J, Erwin MW et al. (2011) *Comparative Effectiveness of Exercise, Acupuncture, and Spinal Manipulation for Low Back Pain,* Spine 36: S120-S130.)

Figure 1. A Clinical Prediction Rule and Treatment Classification System. Adapted from Hebert et al

Flexion Bias	*Extension Bias*	*Manipulation*	*Stabilization*	*Traction*
• Older age (>50 y)	• Symptoms distal to the buttock	• No symptoms distal to knee	• Younger age (<40 y)	• Symptoms extend distal to the buttock(s)
• Directional preference for flexion	• Symptoms centralize with lumbar extension	• Duration of symptoms <16 d	• Average straight-leg raise (>90°)	• Signs of nerve root compression
• Imaging evidence of lumbar spine stenosis	• Symptoms peripheralize with lumbar flexion	• Lumbar hypomobility	• Aberrant movement present	• Peripheralization with extension movement; or positive contralateral straight leg raise test
	• Directional preference for extension	• Fear-Avoidance Beliefs Questionnaire for Work <19	• Positive prone-instability test	
		• Hip internal rotation range of motion >35		

3. United States. SMT for the Elderly with COPD

Here is a new study from Dr. Paul Dougherty, of New York Chiropractic College and the University of Rochester School of Medicine and Dentistry, and colleagues offering preliminary evidence that chiropractic SMT has the potential to improve lung function in elderly patients with chronic obstructive pulmonary disease (COPD). This study is a case series involving 6 residents of a long-term care facility, the Monroe Community Hospital, and was performed with the assistance of staff at the respiratory therapy department.

The patents, all over age 65 and with an average age of 79.1 years, had a course of 12 SMT sessions over a four week period with lung function measurements recorded by a respiratory

continued on page 8

Advances in Research in Canada

The Canadian Chiropractic Association (CCA), led by Dr. Allan Gotlib, Director, Research Programs, has been building impressive chiropractic research capacity in Canada during the past decade. This is in partnership with the Canadian Institutes of Health Research (CIHR), the federal government's funding agency which provides almost $1 billion in funding annually.

Canada now has more than 20 DC PhDs at leading universities and educational institutions across the country, including its two chiropractic colleges the Canadian Memorial Chiropractic College (CMCC) in Toronto and the Université du Québec à Trois-Rivières (UQTR) in Quebec. Another 15 chiropractic PhD students are set to graduate soon.

To direct this growth in research, the CCA and the CIHR have formed and funded a Canadian Chiropractic Research Consortium which brings chiropractic and other researchers and their institutions together. The Consortium's 2011 Symposium was held at the University of Toronto September 23-24,2011 titled *Advancing the Canadian Chiropractic Research Agenda* with a theme of "a transdisciplinary approach to neuromusculoskeletal health, injury and disease: collaborative engagement in chiropractic research."

Opening keynote speakers were Dr. David Naylor, former Dean of Medicine and now President, University of Toronto and Dr. Patrick Loisel, Professor, Dalla Lana School of Public Health, University of Toronto who has Dr. David Cassidy and Dr. Pierre Cote among the five DC PhDs at his institution and also serves as a professor at CMCC.

Dr. David Cassidy, a leading Canadian chiropractic researcher currently living in Denmark but maintaining research affiliations and projects in both countries, led the final open session devoted to conclusions drawn from the two days of the workshop. One central conclusion was that there were two vital criteria of growing importance to gaining large government and foundation grants for research in an increasingly competitive environment.

The first is that research is of practical importance, that it is seen to relate to improved healthcare delivery for patients and improved economic and other performance of the healthcare system. Areas discussed included reducing surgeries and wait time for surgeries, and reducing crowding and wait times in hospital emergency departments.

As a good example of this Dr. Deborah Kopansky-Giles, who leads the Chiropractic Department at St. Michael's Hospital at the University of Toronto, is part of an interdisciplinary team that has just received a large government grant to assess the impact of having chiropractic services introduced in the Emergency Department at St. Michael's Hospital. This is to assist with the large volume of patients with acute back pain and other musculoskeletal disorders.

The second criterion is that funded research projects must increasingly be collaborative and interdisciplinary. Greg Kawchuk DC PhD, Canada Research Chair in Spinal Function, Department of Physical Therapy, University of Alberta, described an excellent example of this. He is one of five principal investigators who have just received a $2.5 million grant from the CIHR and partner foundations for a new project titled SafetyNet. This comprises interdisciplinary research aimed at "building a culture of safety for spinal manipulation." This will include building an adverse events reporting system.

Very interestingly, this not only brings together a large network of researchers from different professional groups such as biomechanics, chiropractic, law, neurology, orthopaedics, pediatrics, and physical therapy, but is also supported by the regulatory bodies for the four professions that deliver spinal manipulation in the Province of Alberta – chiropractic, medicine, osteopathy and physiotherapy. Dr. Kawchuk identified this high level of collaboration, together with evidence of past successful collaborations, as being of key importance in gaining this large research grant in competition with many others.

As was apparent to the international chiropractic community at the WFC's Congress in Montreal in 2009, and as this symposium confirmed, strong integration and partnerships with major universities is bringing an impressive quality and quantity to chiropractic and chiropractic-related research in Canada.

(From left) *Canadian chiropractic researchers Jeffrey Quon DC, PhD, University of British Columbia, Pierre Cote DC, PhD, University of Toronto, Greg Kawchuk DC, PhD, University of Alberta, David Cassidy DC, PhD, University of Toronto, and Patrick Loisel MD, Orthopedic Surgeon, Professor at the Dalla Lana School of Public Health, University of Toronto and Canadian Memorial Chiropractic College.*

Bernadette Murphy DC, PhD, Director, Human Neurophysiology and Rehabilitation Laboratory, University of Ontario Institute of Technology, with keynote speaker Phillip Gardiner PhD, Scientific Director, Institute of Musculoskeletal Health and Arthritis, Canadian Institutes of Health Research.

Main Article *continued from page 3*

As we stand, the chiropractic profession continues in some high-profile quarters to shoot itself in the foot. For example, minority-group guidelines which advocate high-intensity, prolonged courses of care for simple mechanical back pain. Practice-building seminars which guarantee immense wealth to their delegates through the utilisation of rehearsed high-pressure scripts, and warnings, even by national chiropractic associations, of the devastating effects of uncorrected vertebral subluxation. Practice methods which sacrifice patient dignity and privacy in favour of an open plan approach to patient care. And, perhaps saddest of all, is the promulgated view that those who take a differing approach to care are somehow lesser chiropractors, who are 'non-philosophical', 'unprincipled' and who are pain-based rather than 'wellness' based.

The time is here to engage the silent majority. For most chiropractors, professional practice means keeping your head down and doing a good job, caring for patients and going home to our families each evening hoping that we've made the world a better place. The very thought of becoming involved in political activity is an understandable anathema to most chiropractors.

Much as we like to comfort ourselves that such a silent majority exists, and supports us – silently – we have no evidence that we have that support. Silence could be perceived as a tacit contentment with what is being done by our political leaders but conversely it may convey a sense of hopelessness, a feeling that the direction of the profession has shifted so far away from the science-based programmes promoted at their respective alma maters that they would rather keep themselves distanced from the current goings-on and stay focused on their day-to-day lives.

I am saddened when I speak to chiropractors who find themselves constantly having to defend their profession in the face of the media's far-too-easy discovery of embarrassing revelations about their colleagues. My heart sinks when I see patient leaflets that describe subluxation as 'the silent killer'. Young colleagues who tell me that at practice-building seminars they are given scripts that tell them how to shake their heads, adopt a solemn expression and sigh, "It's bad news Mrs Jones; you have subluxation."

Is this really what we want chiropractic to be reduced to? Intelligent young graduates, full of knowledge, skill, hope and expectation being seduced by those who style themselves as 'principled chiropractors'? What does that make the rest of us? And are we any better if we stand by and fail to react?

Through the catalyst that was the Singh case comes the realisation that we must focus on the evidence, we must pursue research and we must be supportive of the concept of lifelong learning through the facilitation of graduate education and continuing professional development (CPD).

We must also support quality undergraduate chiropractic institutions, particularly those affiliated with public universities; in Europe we have a growing number of such programmes: the Swiss at the University of Zurich, the Danes at the University of Southern Denmark, AECC in Bournemouth and the Welsh Institute of Chiropractic at the University of Glamorgan. France and Spain also have established chiropractic programmes which have attracted much interest in their respective countries.

The ECU has set up an Education Task Force to expand the number of countries offering chiropractic education and has recently met with university leaders in Istanbul with a view to setting up a programme in Turkey. Chiropractic education is the source of ongoing heated debate, yet through links with publicly funded higher educational institutions, it is gaining legitimacy and stepping up to the plate.

Accountability requires that faculty deliver high-quality programmes and reject unproven theories of the past. Sharing faculty members with other healthcare programmes further enhances the credibility of the courses and brings chiropractic students into contact with their medical and dental counterparts. Contrary to the gloomy predictions of those prophesising the imminent demise of the chiropractic profession should they even breathe near a medical practitioner, many of today's chiropractors seek integration and express a strong desire to be part of the accepted medical community.

The ECU recognises that cultural acceptance of the chiropractic profession will be driven by a clear identity, underpinned by sound research. It is committed to positioning chiropractors as the spinal healthcare specialists of choice, but knows that research will ultimately be the currency of the profession. If we fail to invest properly in research we will fail in our quest for credibility and with it we will lose a momentum that has been pioneered by European researchers.

Put simply, if we ignore the need for research and partnership with others in mainstream healthcare, and fail to challenge the charismatic evangelists among us who are often heard to be the voice of the profession, chiropractic will remain on the periphery and will be considered but a fringe player in the musculoskeletal healthcare community.

In the UK, the BCA has just invested in a Research and Development Department based at AECC. It will specifically focus on the key question of the moment – cost effectiveness. It is no longer acceptable to merely show that chiropractic care is clinically effective; for chiropractors to be even on the horizon when it comes to National Health Service commissioning the profession must show that it can deliver cost-effective healthcare. Through the use of patient-reported outcome measures it may produce data seen to be of increasing relevance.

The ECU ringfences part of its subscription for research. A dedicated Research Council distributes funds for research. But it's not good enough just to fund research; as political leaders we have a duty to shout our chiropractic researchers' achievements from the rooftops and celebrate their successes.

Through a 2010 agreement with the Chiropractic and Osteopathic College of Australasia (COCA), the European Academy of Chiropractic (the academic arm of the ECU) co-funds the Chiropractic and Manual Therapies online journal. It is extremely proud to do so. The agreement demonstrates a commitment to drive the profession forward on an evidence-based footing and encourage chiropractors to participate in authoring high-quality papers. Through the vision of its leaders and its editorial board, chiropractic now has a second powerful journal which has set the bar far higher than any other previous journal in Australasia or Europe. (*The profession's other leading peer-reviewed, indexed journal is of course the* Journal of Physiological and Manipulative Therapeutics*, the official scientific journal of the American Chiropractic Association and the National University of Health Sciences, Chicago, Illinois, and published by Elsevier Inc.* Ed.)

We must support this initiative and awareness of this open

access journal should be promoted not just by those conducting research, but by all of us in chiropractic.

We cannot stop evolution, nor should be endeavour to do so. The enhanced profile of chiropractic in Europe has inevitably led to a greater degree of scrutiny. We must be answerable to enquiries made of us and we must continue to enquire of ourselves. Challenging our beliefs and adapting to evidence are marks of maturity that the chiropractic profession must embrace to move forward. Having strategic objectives in Europe will hopefully enable the chiropractic profession to unite behind common issues but whatever happens, a discerning society will continue to support good practice and condemn the bad.

I'm reminded of the words of Charles Darwin, whose words perfectly articulate the position in which we find ourselves:

"*In the long history of humankind (and animal kind too) those who have learned to collaborate and improvise most effectively have prevailed*".

Some may say that the BCA was foolhardy to pursue a journalist over comments made in a national newspaper. Others supported its stance and congratulated the BCA on standing up to what it felt was unfair criticism. Things didn't go the way it had hoped or planned and it was left somewhat licking its wounds.

Someone once said, "The one thing you get, when you don't get what you want, is experience." The BCA gained much experience in those two years. There has been much to reflect on, and in a strange way the chiropractic profession may one day look back and thank Simon Singh for making the chiropractic profession recognise its weaknesses and evolve from teenage angst into adult maturity. We have been indecently exposed and we must now seek to clothe ourselves in the respectability that modern healthcare demands of us.

Our challenge lies with ensuring that chiropractic commits itself to practising evidence-based, research-driven healthcare. Anything less will sell ourselves down the river and perpetuate the feeding frenzy of criticism witnessed in the UK.

Richard Brown DC, LL.M, FEAC

President, British Chiropractic Association
Secretary, European Chiropractors' Union
Secretary-General, European Academy of Chiropractic

Address for correspondence: British Chiropractic Association, 59 Castle Street, Reading, United Kingdom RG1 7SN
rbrown.bca@gmail.com

TCR

continued from page 5

therapist at baseline and at 2 and 4 weeks. To quote Dougherty et al:

"Thoracic SMT increases the functional mobility of the chest wall by increasing the mobility of the thoracic spinal joints and their associated rib articulations. Because improving the functional mobility of the chest wall has been shown to benefit lung function in the elderly, applying the intervention to elderly patients with COPD carries with it at least the potential to improve lung function, as this case series suggests."

There was a clinically significant increase in forced expiratory volume immediately after SMT in 4 of 6 patients that was sustained at 2 weeks. This was sustained in only 1 patient at 4 weeks – but this was the only ambulatory patient with a full set of outcome measures at that time. Two of the others were wheel chair dependant.

There were no adverse events from the 216 thoracic spinal manipulations delivered. The authors note that more sustained improvement may be achieved where there are higher patient activity levels.

(Dougherty PE, Engel RM et al. (2011) *Spinal Manipulative Therapy for Elderly Patients with Chronic Obstructive Pulmonary Diseas:* A Case Series. (J Manipulative Physiol Ther 34; 413-417)

4. United States. Chiropractic Management of Postsurgical LBP

There is little published evidence concerning chiropractic spinal manipulation for postsurgical patients, whether as to effectiveness or safety. JMPT has just published a good case series from Ralph Kruse, DC, in private practice in Chicago, and Jerrilyn Cambron, DC PhD, a research scientist at the National University of Health Sciences in Chicago, which reports good results with 32 consecutive patients. Points are:

a. This was a retrospective review of 32 patients with postsurgical low back pain who received Cox flexion distraction manipulation (together with adjunctive procedures) for at least 2 weeks and had a record of pre-treatment and post-treatment pain scores on the Numeric Pain Scale (NPS).

b. On an average number of treatments of 14 (range 6-31) the mean or average reduction in NPS pain scores was from 6.4-2.3, a reduction of 4.1 out of 10.

No adverse events were reported for any of these postsurgical patients. In summary, good results with difficult patients.

(Kruse RA, Cambron J, (2011). *Chiropractic Management of Postsurgical Lumbar Spine Pain:* A Retrospective Study of 32 Cases, J Manipulative Physiol Ther 34; 408-412)