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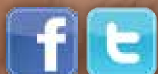

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Stanley Innes

BAPPSC(CHIRO), BHONS(PSYCH), MPSYCH

I WAS "CHIROPRACTICALLY" RAISED ON THE BELIEF THAT 80% OF PATIENTS WITH LOW BACK PAIN GOT BETTER WITHIN 2 TO 4 WEEKS, REGARDLESS OF THE INTERVENTION I USED.

Just quietly, I found that a little reassuring. That was almost 35 years ago now. While in practice, part of my conversation with 'new' or 'returning' patients was to try to give them some sort of expectation of the recovery time. My aging and degrading memory seems to recall lots of people being given very favourable prognoses. I cannot readily recall myself saying that this looked nasty and that it was highly likely that you will most likely experience ongoing intermittent bouts of acute low back pain with some sort of residual pain or discomfort. That picture is ever changing. There are now clever people who are applying technology to find ways of tracking the typical chiropractic patients' response to care.

So what would you expect to find if you could track around 260 patients who presented to your clinic with an acute bout of low back pain that were diagnosed as non-specific low back pain for 6 months?

Stop here and put a percentage guestimate on the those who

1. Would make a sustained recovery i.e., no further LBP for 6 months?
2. Would relapse i.e., have another bout with at least 4 weeks without LBP, and then recover again?
3. Have one period in the 6 months of recovery i.e., 4 weeks without LBP but were experiencing pain otherwise?
4. Did not recover at all i.e., never reported 4 weeks without pain?

Did you stop…my guess was somewhere around 70% sustained and 10% for each of the other 3. Iben Axen and Charlotte Leboeuf-Yde recently published a study in Chiropractic and Manual Therapies that used this methodology in Denmark with the help of 35 chiropractors who recruited the patients. The data was collected every week by SMS. They found 20% had a sustained recovery, 20% recovered but relapsed, 23% had only one recovery period without pain and 37% did not recover.

Would this be different in Australia? Would this vary across different technique systems e.g., Gonstead versus Diversified versus S.O.T. versus Activator? Would it vary if maintenance care were given to all participants? I have my suspicions on the answers to these questions but only targeted research could answer them.

Now that's a cheery set of numbers to tell our patients. This raises the question of should we deliver these facts to our patients? . . . after all the biopsychosocial model suggests we should reassure our patients, not create any fear or anxiety…BUT the Code of Conduct for Chiropractors states that good care involves "ensuring that the diagnosis / clinical impression is appropriate, relevant, justifiable and based on sound clinical reasoning.. pg 8". It would appear we are obligated to have such conversations with our patients. Awkward. Would it be something like the Informed Consent conversation with patients?

These days I seem to have more questions than answers. I plan to take some of these questions (and a few others) along to the National Conference in October in Melbourne and harass the presenters. Come along with your questions and join in the harassing fun. Just saying…

Stanley Innes
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President

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Items will be accepted via email, cd-rom, MSWord, or on paper. Letters to the Editor are limited to 500 words.

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Interview with Professor Simon French

By: **Matthew Bulman BHSc, MChiro**

Simon French, PhD MPH BAppSc (Chiropractic) has recently accepted a role at Macquarie University as a Professor of Musculoskeletal Disorders. He completed his PhD at the Australasian Cochrane Centre in 2009, and undertook his post-doctoral position at the Primary Care Research Unit, University of Melbourne, supported by an Australian National Health and Medical Research Council Research Fellowship. In 2013, Simon was awarded the Canadian Chiropractic Research Foundation Professorship in the School of Rehabilitation Therapy, Faculty of Health Sciences, Queens University.

Simon conducts research in the area of knowledge translation in primary care with a focus on the management of musculoskeletal conditions. He also undertakes randomized trials of interventions relevant to primary care settings.

Prior to leaving for Canada, Simon served for a number of years on the Executive of COCA and while overseas he has remained active as a Board member of the COCA Research Fund. He is Deputy Editor-in-Chief of the journal Chiropractic & Manual Therapies.

Simon will be taking up his position at Macquarie University in October and will also be a presenter at the COCA Research Day.

CA: Congratulations on your recent appointment as a Professor of Musculoskeletal Disorders at Macquarie University. Are you looking forward to returning to Australia?

SF: Thank you. Of course I am looking forward to returning to Australia. It was a difficult decision to leave Canada, but professionally and personally, we decided as a family that it was good timing to return to Australia. There are exciting times ahead with this position and with what we will be able to achieve at Macquarie University.

CA: You were in Canada for the past few years at Queens University. Can you speak about the Professorship as part of the Canadian Chiropractic Research Foundation (CCRF)?

The CCRF have funded 16 Research Chairs in Canada. With Professor Jeff Hebert's recent appointment at the University of New Brunswick, the CCRF have achieved their vision of placing a Chair in every Canadian province. The way it works is that the CCRF provides funding to a Canadian university, who then hire a PhD qualified researcher, with a background in chiropractic, to be part of their program. However, the CCRF is now going through a transition period and have shifted their focus to funding research-based projects rather than individuals.

What projects were you working on in Canada?

It was a busy 4 years in Canada! I think your readers would probably be most interested in my work that is directly related to chiropractic practice, and there are three areas I have been working on.

The first is an area of research known as implementation science, and I specialise in knowledge translation research for musculoskeletal conditions. This involves the development and evaluation of knowledge translation interventions, in line with clinical practice guidelines, to assist practitioners in providing the best possible care to patients. Our team holds two CIHR-funded grants (equivalent to Australia's NHMRC) to investigate predictors, barriers and facilitators of imaging use for low back pain with primary care providers (chiropractors, physiotherapists and family doctors) and with emergency doctors.

The second area I work in is to conduct practice-based observational research in chiropractic practices. Accurate information about current chiropractic practice, such as determining who consults chiropractors and what care chiropractors provide, ensures the profession's stakeholders are fully informed using reliable information.

Lastly, I conduct clinical trials and systematic reviews of interventions relevant to chiropractic practice. For example, along with Drs Sil Mior (CMCC) and Pierre Côté (University of Ontario Institute of Technology) we are conducting an evaluation of the implementation of chiropractic services on-base in the Canadian Armed Forces. In the past Canadian military personnel could access chiropractors only in the community, not on base. We are placing a chiropractor on base with the physiotherapy team to see whether we can improve outcomes for military personnel with low back pain.

How is Canadian Chiropractic research currently positioned compared to Australian Chiropractic Research?

I have to be a little pedantic and clarify what you mean by "Chiropractic Research". I would say that there is research that is conducted by people who have a background in chiropractic, there is research that is relevant to practicing chiropractors, and there is research that is directly funded by the chiropractic profession. And these are not necessarily the same thing of course.

If I restrict my answer to research that is funded by the chiropractic profession, then in Canada the main funding has been directed toward the research Chair program. This has been a huge investment in research by the Canadian chiropractic profession, if you think that each Chair would cost approximately CAD$500,000. The Chair program has resulted in having chiropractors with a PhD and an active research program embedded in 16 universities across Canada, working with researchers from many different disciplines including public health, epidemiology, kinesiology, basic science, physiotherapy, medicine and many others. The other large investment by the Canadian chiropractic profession has been toward developing the Canadian Chiropractic Guideline Initiative (CCGI), led by Dr André Bussières at McGill University. The CCGI develops and adopts evidence-based clinical practice guidelines and facilitates their dissemination and implementation within the chiropractic profession.

In Australia, we are at a different stage of research activity within the chiropractic profession. There has been some investment in research by the profession, including by COCA Research Ltd, by Chiropractic Australia and by the Chiropractic Association of Australia, but we have a lot more work to do. The focus in Australia has been mostly to fund PhD scholarships, recognising that we need to increase the number of chiropractors actively conducting research.

CA: I remember some of the work you were doing prior to departing for Canada. In fact, some of the work you published brought some positive endorsements for the chiropractic profession! The first study I remember hearing about was Chiropractic Observation and Analysis Study (COAST) providing an understanding of current chiropractic practice and published in the Medical Journal of Australia. Did you continue on with this line of investigation?

We conducted a similar study in Ontario to understand the profile of chiropractors, their patients and what treatment chiropractors provide. For the most part the findings were similar to our Australian study, except that there tended to be less encounters focused on maintenance care or wellness, and more on the direct treatment of musculoskeletal conditions. Ideally, I would like to undertake a national study when I return to Australia, but obtaining funding to do that study will be challenging in the current funding environment.

CA: Another publication that I think demonstrated our role in healthcare is "Approach to Low Back Pain." How does conducting research create opportunities for the profession?

When the profession conducts high quality and relevant research, it brings with it cultural authority. It also brings respect from other disciplines, acknowledging that the profession is committed to producing high quality evidence to inform clinical practice.

Conducting research and creating a strong research infrastructure also creates other career opportunities for chiropractic graduates. In the late 1990's, I sought my research training external to the chiropractic profession in public health and medicine because high quality research training was not available within the chiropractic profession. Currently in Australia, the overwhelming majority of graduates move into private practice, which is great, but it also would be wonderful for the profession to provide alternate career trajectories in research and academia.

CA: I remember the last time we interviewed you in 2013, you had mentioned that a researcher's career was limited in Australia. This led you to Canada. Obviously the landscape has changed in that time for Australian researchers. Is there room for optimism here? Are there any projects you are looking forward to working on?

Indeed! I would not be returning to Australia if I was not optimistic that research was going to flourish. I am also buoyed by the number of people, from many different areas of the chiropractic profession in Australia, who have contacted me to congratulate me on my appointment to Macquarie. I am optimistic that the position is going to be well supported by the profession.

I feel it is an exciting time to come back to Australia. My perspective on what matters in research and in health care delivery has expanded since I have been in Canada. I am looking forward to launching projects that will improve the healthcare experience for people with musculoskeletal conditions. These projects are inherently multidisciplinary and I look forward to further developing my collaborations with other disciplines in Australia, eg general practice, physiotherapy, rheumatology, and also developing new collaborations to address important research questions of national significance to Australia.

CA: You will be presenting at the COCA Researcher Day. I have been at each of the Research Days for the past few years and found them very interesting. This year they, are opening the research day to the whole of the profession. What will you be presenting on? Will clinicians find it of interest?

I will presenting about the Canadian CCRF Chair program, and also running a workshop on research study designs. It is probably the active researchers who will be most interested, however, I have also submitted a couple of abstracts for the research presentations on the Friday afternoon – one on a study developing research priorities for the Canadian chiropractic profession, and one reporting the findings of a cluster randomised controlled trial we conducted in Australia with chiropractors (and physiotherapists). I would certainly encourage clinicians to come along to the research presentations because it would be of interest to find out what their talented research colleagues are up to, and to find out about the latest research being conducted in Australia that is relevant to chiropractic practice.

CA: What was your Canadian experience like? Did you pick up new interests such as skiing? Did you miss the weather here? Have you heard about the housing market in Sydney?

The climate here in Kingston is amazing. Being August, I am currently sweltering in 30+ degrees and 90% humidity, but in January/February the temperature will be down to -30 degrees and we will be knee deep in snow. We love the outdoors so we have thoroughly enjoyed exploring the Ontario wilderness via camping and canoeing trips. There are so many lakes to explore and trees as far as you can see. The fall (autumn for those in Australia) is beautiful with so many trees turning into a kaleidoscope of yellow, brown and orange, and it really feels like you are living in a water colour painting. The wildlife has also been amazing for us, seeing so many animals you do not see in Australia such as squirrels, chipmunks and bears in the summer, to moose, deer and snowy owls in the winter.

CA: Is there anything you would like to mention to our colleagues here in Australia?

Looking forward to reconnecting with you soon! And if you are interested in undertaking some research, especially a PhD, at Macquarie, let me know.

Thanks for your time. We look forward to your return in October!

Advertising – Are You Compliant?

By: **Dr Julian White DC**

AHPRA held a forum on Advertising Guidelines in Melbourne on 9 August which I attended along with representatives from all the regulated health professions, as well as some consumer groups and some Board and Association members.

In 2016 AHPRA received the following number of complaints regarding advertising:

- Chinese med 38
- Chiropractic 592 *
- Dental 106
- Medicine 82
- Nurse/midwife 10
- Occupational Therapy 1
- Optometry 2
- Osteopathy 239
- Pharmacy 3
- Podiatry 10
- Psychology 7

* of these 337 have been reassessed resulting in 50% compliant.

The numbers speak for themselves and as result the CBA are considering conducting audits of advertising. Consequently, it is important that all practitioners note the following:

”Section 133 of the National Law makes it “a **criminal offence** (my emphasis) for any person (including registered health practitioners) to advertise a regulated health service or business that provides a regulated health service, in a way that:

- is false, misleading or deceptive or is likely to be misleading or deceptive; or
- offers a gift, discount or other inducement to attract a person to use the service or the business, unless the advertisement also states the terms and conditions of the offer; or
- uses testimonials or purported testimonials about the service or business; or
- creates an unreasonable expectation of beneficial treatment; or
- directly or indirectly encourages the indiscriminate or unnecessary use of regulated health services.”

The definition of a regulated health service is very broad and applies to public and private services. It is not constrained to direct clinical services.

Currently the maximum penalty for each advertising offence is $5,000 for an individual and $10,000 for a body corporate. These relatively low penalties are related to the protective nature of the National Scheme legislation and while acting as a general deterrent, the maximum penalty available for a conviction may not always seem proportionate to the offence, particularly in the most serious cases of false advertising.

However, if a registered health practitioner breaches the advertising offence provision of the National Law there are other enforcement approaches available. A breach of the advertising offence provision by a registered practitioner is also a breach of the Board’s advertising guideline and code of conduct, so the practitioner’s conduct is grounds for disciplinary action in relation to their registration. This is a core aspect of AHPRA’s enforcement approach.”

Furthermore, if you can’t say it in advertising then you can’t say it, display it or do it directly to your patients. It is still considered ‘advertising’, even in your own premises.

Chiropractic Australia and COCA endorse the AHPRA and Chiropractic Board guidelines regarding advertising. If you have any questions regarding your advertising please refer to The Guidelines for Advertising Regulated Health Services under the Codes and Guidelines section of the Chiropractic Board website (www.chiropracticboard.gov.au) or Advertising: Strategy, legislation and guidelines under the Publications and Resources section of the AHPRA website (www.ahpra.gov.au).

Chiropractic & Manual Therapies accepted into MEDLINE database

In a history making achievement, COCA’s online journal Chiropractic & Manual Therapies (C&MT) has been accepted into the MEDLINE database and is the first journal in the world with the word chiropractic in its title to achieve this prestigious listing.

In making this announcement, Editor-in-Chief Dr Bruce Walker said “This achievement did not happen by accident and we owe a debt of gratitude to the many people who support the journal. In particular I would like to thank the editorial team of Simon French, Stephen Perle, Peter McCarthy, Iben Axen and Jeff Hebert for their continuing and committed efforts to maintain quality in the articles published. Their pro bono contribution is second to none. Also a big thank you to editorial team member Charlotte Leboeuf-Yde, who is our senior editorial adviser, Charlotte’s continued and enduring contribution has been outstanding.”

Dr Walker also thanked the members of the Editorial Board for their advice, submissions and continued support over many years and the joint venture partners of the journal, The European Academy of Chiropractic (EAC), the Royal College of Chiropractors (UK), the Nordic Institute of Chiropractic and Clinical Biomechanics (Denmark) and the Chiropractic & Osteopathic College of Australasia/ Chiropractic Australia, who provide the financial support required to maintain the journal at its high standard. Dr Walker also acknowledged the publisher BioMed Central for their consistent and quality stewardship, help and advice over many years which he said had been inspiring.

“Of course none of this would have happened without the contributions of the authors” said Dr Walker, “nor without our readers who have made over 3 million downloads of articles from our website. Thank you.”

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An Interview with Aron Downie

By: **Matthew Bulman BHSc, MChiro**

Mr Aron Downie is a health researcher and full time lecturer at Macquarie University Department of Chiropractic, and has been in continual practice for 23 years. He completed his Master of Philosophy in 2011 and is currently enrolled in a PhD at the University of Sydney Medical School. His research focus is on recovery from spinal pain and the reliability of screening tools to assist primary clinicians interpret the evidence for both screening of pathology and understanding of recovery for people with back pain.

Aron was kind enough to answer some questions we have about his upcoming presentation at The Modern Practice.

CA: Why did you decide to become a chiropractor?

My high school years were focused on becoming an engineer. Three years later as an electrical engineering degree trainee I realised that my passion was anatomy, health and human function. Transitioning to chiropractic was a natural progression.

CA: How has your career changed over the years? How has your research influenced your practice?

I entered clinical life in 1995 with the mantra "care for your patients, adjust them well, and get them moving". Back then, I had little idea of formal rehabilitation or what evidence informed care really meant. My eyes were opened by "The Chiropractic Report" and a subscription to JMPT (in paper!). However, in the early part of my career I felt out of place amongst my peers with my practice style focused on improving health whilst minimising care. In contrast, my local professional network was focused on how to increase patient visits and create what we now know as co-dependency.

I began to interact with local rehabilitation specialists, and learnt that (unlike some of our profession at the time) they did not have THE answer for managing spinal pain and were happy to admit as much, which inspired them towards research. This more than anything else stimulated my interest in clinical research.

My current practice style has changed a lot. Active care paradigms are now introduced earlier in the course of therapy; I have tools to recognise barriers to recovery; and have gained an understanding regarding the utility (or otherwise) of clinical practice guidelines.

CA: You have published some high impact research in the past few years. The first article of yours I remember reading is titled "Red flags to screen for malignancy and fracture in patients with low back pain: systematic review" published in the British Medical Journal. What were the results of the systematic review?

The key results of this paper were that very few of our screening questions are informative for raising suspicion of pathology when patients present with LBP (older age, prolonged corticosteroid use and trauma increased likelihood of spinal fracture; whilst only history of cancer increased the likelihood of malignancy). More importantly, the "tick box" approach to screening for pathology is flawed, yet continues to be perpetuated by clinical guidelines. A more nuanced approach e.g. adding watchful waiting to some red flags may be of value.

CA: Another high impact publication of yours is, "Trajectories of acute low back pain: A latent class growth analysis," published in Pain. What did you find, and how can clinicians use this to inform their practice?

This was my first paper to investigate patterns of recovery in an acute population (n=1585). This opened my eyes to "person centered modelling" which considers the individual experience. These results cannot be translated directly into clinical care, as it was a data driven retrospective analysis, and not a clinical prediction model. However, the results do suggest that unique patient phenotypes relating to recovery do exist, which may help us move beyond simplistic recovered/not recovered labelling for a current episode of LBP.

CA: What are the current projects you are working on? Anything exciting that you would like to highlight?

I have been fortunate to continue working with great researchers on screening for pathology with the goal of changing the guidelines in this area, and more recently updating some Cochrane reviews. My interest in recovery patterns continues with projects looking at phenotypes for a range of conditions including back pain, arthritis and knee pain. I am also working on an electronic decision support tool (iPad app) to help community pharmacists better inform patients on management of LBP. Part of the management advice will be to suggest referral to manual therapists when indicated. Spinal stiffness as it relates to clinical syndromes is also a research interest.

CA: It seems like some great collaborative efforts in the research world have been underway. What does this mean for the profession?

From my brief time in research, I have observed that high quality, impactful research often requires dedicated researchers from across disciplines. In general, researchers respect one another not based on professional clan, but on peer reviewed publication output. There is little room for prejudice in good research. Our future depends upon the ability to publish high quality health research, and on graduates who commit to best patient care through use of evidence-informed decision making.

CA: Do you have any hobbies?

I am passionate about photography and hi-fi – neither of which I have taken the time to enjoy lately.

CA: What are your 5 favourite movies?

Star Wars Episode IV (first watched at a local drive-in with my dad as an 8yr old); the Big Lebowski; Jason Bourne trilogy; Back to the Future; Blues Brothers

CA: What book has had the greatest impact on you?

As a child: Aldous Huxley – Brave new World

Grown-up: Christopher Hitchens – (any writing)

CA: Anything else you would like to mention?

Thank you for giving me the opportunity to reach the profession in this way.

We look forward to your presentation at The Modern Practice.

The Importance of Hand Hygiene in the Modern Chiropractic Practice

By: Dr Katie Hallworth BAppSc(Clin), BSc(Chiro), MSc(Chiro Paediatrics)

Hand hygiene practices are typically poor among healthcare practitioners (Puhl et al, 2011) and when we reflect on what constitutes a modern day chiropractic practice we must consider the prevalence of viruses and bacteria and how easily it can be to transmit pathogens from one patient to another by our hands.

Healthcare associated infections are a major issue not just in hospitals but also out in private, community-based clinics such as chiropractic clinics. There is a National Hand Hygiene Initiative that was implemented by Hand Hygiene Australia under The Australian Commission on Quality and Safety in Health Care which primarily focused on acute care hospital settings however there are free resources now available for all health care practitioners (Hand Hygiene Australia, 2017a).

Improving hand hygiene practices in chiropractic clinics is a simple, low cost strategy that can dramatically enhance patient safety (Green et al 2012). Chiropractors among other allied health professionals are guilty of poor hand hygiene practices. Several reasons have been identified for this including heavy workloads, poor sink and soap access, hands not appearing dirty, and skin irritation from frequent washing. One of the problems is that we don't tend to get 'dirty' when working on patients (Puhl et al 2011). We aren't working with bodily fluids such as blood or urine such as in a hospital setting. Our hands may look clean, but many germs may be still present which could transmit disease.

Many microbes including bacteria and viruses such as influenza are spread by practitioner's hands and the matter is now considered a national priority for consideration and action (Hand Hygiene Australia, 2017a). There is an increased prevalence of "superbugs" that are resistant to antibiotics, cause chronic infections and a high morbidity rate such as Methicillin-resistant Staphylococcus aureus (MRSA) and Vancomycin-Resistant Enterococci. This means that more patients coming into chiropractic clinics are carriers (Green et al 2012; Centres for Disease Control 2017). Chiropractors are therefore health care practitioners with a role to play in helping to control the transmission of potentially life-threatening infections in the community, beginning with appropriate hand and clinic hygiene (Green et al 2012).

Hand Hygiene is a general term referring to any action of hand cleansing and includes washing hands with the use of a water and soap (either non-antimicrobial or antimicrobial) or by applying a waterless antimicrobial hand rub to the surface of the hands (e.g. alcohol-based hand rub). When performed correctly, hand hygiene results in a reduction of microorganisms on hands. The free resources available from Hand Hygiene Australia include posters that show correct hand washing and the use of alcohol based hand rub techniques. These can be printed and placed above sinks in your practice (Hand Hygiene Australia 2017b). The use of Alcohol Based Hand Rub (ABHR) is effective against many types of bacteria and viruses, which are invisible to the naked eye.

Hand hygiene contributes significantly to keeping patients safe. Make sure that your clinic is appropriately equipped and that your personal hygiene practices are beneficial to your client base. Check out the Hand Hygiene Australia website (www.hha.org.au) which can give you more information and resources.

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THE MODERN PRACTICE: HOW TO MAKE IT HAPPEN

Early bird registration closing 30th Sept 2017

Changing of the Guard at Murdoch

Murdoch University recently announced that Dr Barrett Losco M.Chiropractic (SA) is to replace Associate Professor Bruce Walker as the Head of the Chiropractic Discipline at Murdoch University.

Dr Losco graduated in 2000 from the University of Johannesburg with a Masters in Chiropractic. He began his academic career at the University of Johannesburg where he remained until 2005 when he moved to Horsham, Victoria and practiced in a rural setting for 3 years.
In December 2008 Dr Losco moved to Perth, Western Australia, returning to an academic role at Murdoch University as a lecturer in clinical chiropractic. His teaching interests include areas relating to spinal pain and the conservative management thereof and he also enjoys teaching that relates to skill acquisition which he believes is particularly important for chiropractic students who are learning manual and manipulative techniques. In addition he also has involvement in areas relating to clinical decision making and professional practice.

Dr Losco's research interests/areas predominantly include the following:

- Outcomes associated with manual and manipulative care.
- Teaching methods employed to develop manual and manipulative skills.
- Effects of manual therapy upon pain perception.

In accepting this new role, Dr Losco paid tribute to his predecessor saying, "Associate Professor Walker has accomplished many things as the Head of Discipline and we are grateful for his leadership over the past few years. Under his guidance, the chiropractic program has developed a strong emphasis in evidence based practice and has also shown a significant increase in research activity, an achievement which we hope to maintain and further develop as more of our staff complete their PhDs."

The Chiropractic and Osteopathic College of Australasia and Chiropractic Australia have established a strong working relationship with the chiropractic program at Murdoch University under Associate Professor Walker and we look forward to that relationship strengthening further under Dr Losco and we congratulate him on his appointment as Head of Discipline.

Macquarie Announces Professorial Appointment to Chiropractic Department

Macquarie University has announced that Professor Simon French has accepted appointment as Professor of Musculoskeletal Disorders, commencing October, 2017.

In making the announcement, Dr Rosemary Giuriato, Head of the Department of Chiropractic at Macquarie's said "We welcome Simon on a personal level and are delighted that he has accepted our invitation to join the Chiropractic Department. This appointment represents an important milestone and development in promoting the evidence-base of the chiropractic profession, by strengthening the research capacity and infrastructure within the department for the benefit of future graduates."

Professor French has significant experience in the development and delivery of university teaching and learning at all levels, in addition to a demonstrated passion and high performance in research on musculoskeletal disorders.

A chiropractic graduate of RMIT University, after practising as a chiropractor for 10 years, Simon undertook his PhD at the School of Public Health and Preventive Medicine, Monash University. His doctoral research was supported by a NHMRC PhD scholarship, and his subsequent post-doctoral work at the University of Melbourne was supported by a NHMRC Early Career Fellowship. Simon is now returning to Australia to take on the Macquarie University position after holding the Canadian Chiropractic Research Foundation Professorship in Rehabilitation Therapy at Queen's University, Canada, since 2013.

Professor French's research has been primarily focused on understanding, informing and improving healthcare practices. His research aims to improve the quality of healthcare, leading to better outcomes for people with musculoskeletal conditions. Simon has obtained research grants totalling >$13M, including >$2M as lead investigator, with many of these grants awarded from major national research funding agencies like the NHMRC and the Canadian Institute of Health Research. He has >70 peer reviewed journal publications, his work is cited >4,300 times and his h-index is 20. He has given >50 invited presentations, and >100 peer reviewed research presentations, at national and international conferences.

COCA congratulates Simon on his appointment and wishes him all the best in his new role.

Applications Open For 2 New Research Scholarships

It is indeed exciting news to be able to announce that applications are being sought for 2 new research scholarships.

The first is a Master of Research scholarship to be jointly funded by ANZMUSC, Chiropractic Australia and COCA Research Ltd and awarded to commence in 2017. This joint initiative will enable a student with a background in chiropractic or osteopathy to work on a project led by an ANZMUSC member. The project could be one of six pre-approved projects or an additional project led by an ANZMUSC member that is approved by ANZMUSC/COCA.

The 6 projects and project leaders available for students to consider are:

1. Implementation in emergency departments of the Agency for Clinical Innovatin (ACI) model of care for acute low back pain. Professor Chris Maher, George Institute for Global Health, NSW
2. A prospective trial assessing the management of humerus shaft fractures in adults. Professor Lucian Bogdan Solomon, Royal Adelaide Hospital, SA
3. HELP – A Healthy LifestyleProgram for patients with chronic low back pain. Dr Christopher Williams & Dr Steven Kamper, NSW
4. Effectiveness of multimodal management of chronic low back pain and mild leg length discrepancy using chiropractic care and heel lifts compared to usual chiropractic care: Optimisation of methods and a randomised controlled trial. Dr Michael Azari, RMIT University, VIC
5. Could the dorsal root ganglia be associated with chronic whiplash symptoms? Dr Diana Perriman, Australia National University, ACT
6. Vitamin D and balance in elderly fallers (The ViDaBE Study). Professor Gustavo Duque, Australian Institute for Musculoskeletal Science, VIC

Other projects being led by an ANZMUSC member may also be considered if they gain approval prior to the scholarship application submission. Potential students are encouraged to discuss the project with the relevant supervisor and complete the Master of Research scholarship application form. The supervisor will need to complete the Supervisor Report.

Applications close Friday Sep 15th 2017, 5pm AEDT and further details can be found at https://www.coca.com.au/research-fund/call-for-funding-applications/

The second scholarship available is a COCA Research PhD Scholarship to commence in 2018 for three years full time or six years part time. The Scholarship amount will be equivalent to the full-time Australian Research Training Program (RTP) stipend base rate. For reference, the 2017 RTP rate was a tax free stipend of $26,682 per annum for three years full time, or half this amount for six years part time.

The first two COCA Research Scholarship recipients have graduated with resounding success. Both CARL Fellows they are well on their way to becoming leaders in the field. If you are keen to become the next the next champion for evidence go to

https://www.coca.com.au/research-fund/call-for-funding-applications/ for full details including application guidelines and forms.

Applications close on Friday 29th September 2017 at 5pm AEST.

Abstracts

STRUCTURAL BRAIN IMAGING IN PEOPLE WITH LOW BACK PAIN

OBJECTIVE: The aim of this study was to determine whether low back pain (subacute and chronic) is related to differences in brain volume.

SUMMARY OF BACKGROUND DATA: Inconsistent findings have been reported about the effect of chronic low back pain on brain volume, and the effect of subacute low back pain on brain volume has not been sufficiently investigated.

METHODS: A total of 130 participants were included (23 subacute and 68 chronic low back pain; 39 healthy controls). The main outcome measure was whole and regional brain volume. Clinical outcome measures included pain duration, pain intensity, fear avoidance belief questionnaire, Oswestry Disability Index, and Beck's Depression Inventory.

RESULTS: Decrease in brain volume in several regions was observed in chronic low back pain when compared with health subjects; however, after correcting for multiple comparisons, no significant differences were detected between any of the three groups in whole-brain volume. Regionally, we detected less gray matter volume in two voxels in the middle frontal gyrus in chronic low back pain participants compared with healthy controls. None of the clinical outcome measures were correlated with brain volume measurements.

CONCLUSION: Low back pain (subacute or chronic) is not related to significant differences in brain volume after correction for multiple comparisons. The effect size was too small to detect possible subtle changes unless much larger sample sizes are examined, or it is possible that low back pain does not affect brain volume

Zaid M. et al., **Structural Brain Imaging in People With Low Back Pain**. *Spine: 15 May 2017 - Volume 42 - Issue 10 - p 726–732*

CERVICAL AND THORACIC INTERVERTEBRAL DISC HYDRATION INCREASES WITH RECUMBENCY. A STUDY IN 101 HEALTHY VOLUNTEERS.

BACKGROUND CONTEXT: Variation in water content and size of the lumbar intervertebral discs (IVDs) is known to occur due to recumbency and has been associated with lumbar IVD herniation risk through the impact of IVD hydration on tissue mechanical properties. It is not clear if similar changes in the cervical or thoracic IVDs occur with recumbency.

PURPOSE: Determine whether increases in hydration of thoracic and cervical IVDs occur with short-duration recumbency.

STUDY DESIGN/SETTING: Test-retest design in a magnetic resonance imaging facility

METHODS: We examined expansion of all IVDs in the spine in 101 healthy individuals (54 females) aged 25-35 yrs on sagittal T2 -weighted magnetic resonance images after a mean of 26.9 minutes lying in the scanner bore. All scans were performed after midday. To mitigate false positives, p-values were adjusted by the false discovery rate method. There was no external funding or potential conflicts of interest for this study.

RESULTS: At the end of lying, cervical spine IVD volume increased by mean(SD) 2.6(5.6)% ($p<0.001$). This compared to a 1.0 (4.0)% ($p=0.024$) increase in upper thoracic spine IVD volume and a 2.0(3.2)% ($p<0.001$) increase at the lower thoracic spine. Lumbar IVD volume increased by 1.2(2.4)% ($p<0.001$). C2/3 IVD volume (+4.1[13.8] %, $p=0.011$) increased the most at the cervical spine, followed by C5/6 (+3.9[9.8]%, $p<0.001$) and C3/4 (+3.8[13.5]%, $p=0.014$). Lumbar IVDs with higher degeneration grades showed more expansion with lying ($p=0.0031$).

CONCLUSIONS: We established that cervical and thoracic IVD volume increases with recumbency. We expect diurnal variation in cervical and thoracic IVD hydration will occur in the general population, with greater cervical and thoracic IVD hydration and size upon rising in the morning.

Belavy et al., **Cervical and thoracic intervertebral disc hydration increases with recumbency. A study in 101 healthy volunteers.** *Spine Journal 2017*

Systematic Reviews

INTERVENTIONS TO INCREASE ADHERENCE TO THERAPEUTIC EXERCISE IN OLDER ADULTS WITH LOW BACK PAIN AND/OR HIP/KNEE OSTEOARTHRITIS: A SYSTEMATIC REVIEW AND META-ANALYSIS.

In this meta–analysis, the physicians assess whether interventions aimed at increasing adherence to therapeutic exercise increase adherence greater than a contextually equivalent control among older adults with chronic low back pain and/or hip/knee osteoarthritis. This systematic review gives moderate–quality evidence that booster sessions with a physiotherapist assisted people with hip/knee osteoarthritis better adhere to therapeutic exercise. In people with chronic low back pain, individual high–quality trials supported the use of motivational strategies and behavioural graded exercise in people with osteoarthritis to improve adherence to exercise.

Nicolson PJA, et al. **Interventions to increase adherence to therapeutic exercise in older adults with low back pain and/or hip/knee osteoarthritis: A systematic review and meta-analysis.** *British Journal of Sports Medicine. May 16, 2017*

IS PILATES AN EFFECTIVE REHABILITATION TOOL? A SYSTEMATIC REVIEW.

This article is a overview of the literature on the effectiveness of Pilates as a rehabilitation tool in a wide range of conditions in an adult population. In this overview, the majority of the clinical trials in the last five years into the use of Pilates as a rehabilitation tool have found it to be effective in achieving desired outcomes, particularly in the area of reducing pain and disability. It demonstrates the need for further research in these many areas, and especially into the benefits of particular Pilates exercises in the rehabilitation of specific conditions.

Byrnes K, et al. **Is Pilates an effective rehabilitation tool? A systematic review.** *Journal of Bodywork & Movement Therapies. May 11, 2017*

THE RELATIONSHIPS BETWEEN LOW BACK PAIN AND LUMBAR LORDOSIS: A SYSTEMATIC REVIEW AND META-ANALYSIS.

The aim of this work was to conduct a systematic review and meta–analysis to determine the difference in lumbar lordotic curvature (LLC) in those with and without low back pain and to evaluate confounding factors that might affect the association between LLC and low back pain. Analysts observed a strong association between LBP and decreased LLC, especially when compared to age–matched healthy controls. Among specific diseases, low back pain by disc herniation or degeneration was shown to be substantially associated with the loss of LLC.

Chun SW, et al. **The relationships between low back pain and lumbar lordosis: A systematic review and meta-analysis.** *The Spine Journal. May 09, 2017*

EXERCISE INTERVENTIONS FOR THE PREVENTION AND TREATMENT OF GROIN PAIN AND INJURY IN ATHLETES.

This systematic review aimed to describe and assess exercise therapy interventions and outcomes for the treatment and prevention of groin injury with specific attention to the application of external load. From level 2 and 3 studies, there is limited evidence indicating exercise therapy may reduce the incidence and hazard risk of sustaining a groin injury in athletes. For groin injury in athletes, there is strong evidence from level 4 studies indicating exercise therapy is beneficial as a treatment in terms of symptom remission, return to sport and recurrence outcomes. There are, however, limited studies with low risk of bias, and exercise interventions for the treatment of groin injury are poorly described.

Charlton PC, et al. **Exercise interventions for the prevention and treatment of groin pain and injury in athletes: A critical and systematic review.** *Sports Medicine, May 23, 2017*

EXERCISE INTERVENTIONS FOR COGNITIVE FUNCTION IN ADULTS OLDER THAN 50: A SYSTEMATIC REVIEW WITH META-ANALYSIS.

A comprehensive literature search was carried out to figure out whether physical exercise is effective in enhancing cognitive function in this population. Physical exercise–enhanced cognitive function in the over 50s, regardless of the cognitive status of participants. To improve cognitive function, this meta–analysis provides clinicians with proof to suggest that patients obtain both aerobic and resistance exercise of at least moderate intensity on as many days of the week as feasible, in line with current exercise guidelines.

Northey JM, et al. **Exercise interventions for cognitive function in adults older than 50: A systematic review with meta-analysis.** B*ritish Journal of Sports Medicine. May 23, 2017*

SHOULD EXERCISES BE PAINFUL IN THE MANAGEMENT OF CHRONIC MUSCULOSKELETAL PAIN? A SYSTEMATIC REVIEW AND META-ANALYSIS.

This study strived to compare the impact of exercises where the pain is allowed/encouraged compared with non–painful exercises on pain, function or disability in chronic musculoskeletal pain patients. The present data indicated that protocols using painful exercises offer a small but significant advantage over pain–free exercises in the short term, with the moderate quality of evidence. However, in the medium and long term there is no clear superiority of one treatment over another.

Smith BE, et al. **Should exercises be painful in the management of chronic musculoskeletal pain? A systematic review and meta-analysis.** *British Journal of Sports Medicine. June 12, 2017*

THE EFFICACY OF CONVENTIONAL RADIOFREQUENCY DENERVATION IN PATIENTS WITH CHRONIC LOW BACK PAIN ORIGINATING FROM THE FACET JOINTS: A META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS.

This meta–analysis was conducted to clarify the efficacy of conventional radiofrequency denervation in patients with chronic low back pain originating from the facet joints relative to those obtained using control treatments, with particular attention to consistency in the denervation protocol. When compared with sham procedures or epidural nerve blocks, conventional radiofrequency denervation resulted in significant reductions in low back pain originating from the facet joints in patients showing the best response to diagnostic block over the first 12 months.

Chung CK, et al. The efficacy of conventional radiofrequency denervation in patients with chronic low back pain originating from the facet joints: A meta-analysis of randomized controlled trials. The Spine Journal. June 12, 2017

STEM CELL INJECTIONS IN KNEE OSTEOARTHRITIS: A SYSTEMATIC REVIEW OF THE LITERATURE.

The aim of this work was to conduct a systematic review and meta–analysis to assess the utility and safety of stem cell injection for knee osteoarthritis (KOA). Six trials with high risk of bias indicated level–3 or level–4 evidence in favour of stem cell injections in KOA. They do not recommend stem cell therapy for KOA in the absence of high–level evidence.

Pas HI, et al. **Stem cell injections in knee osteoarthritis: A systematic review of the literature.** *British Journal of Sports Medicine. June 15, 2017*

NON-STEROIDAL ANTI-INFLAMMATORY DRUGS FOR SPINAL PAIN: A SYSTEMATIC REVIEW AND META-ANALYSIS.

The aim of this work was to conduct a systematic review and meta–analysis to determine the utility and safety of NSAIDs for spinal pain. The data confirmed that NSAIDs are effective for spinal pain, but the magnitude of the difference in outcomes between the intervention and placebo groups is not clinically important. At present, there are no simple analgesics that serve clinically important effects for spinal pain over placebo. There is an urgent need to establish new drug therapies for this condition.

Machado GC, et al. **Non-steroidal anti-inflammatory drugs for spinal pain: A systematic review and meta-analysis.** *Annals of Rheumatic Diseases. June 16, 2017*

Info Bites

CORTICOSTEROID INJECTIONS FOR ADHESIVE CAPSULITIS, DO THEY WORK?

Researchers assessed the benefits of corticosteroid injections for adhesive capsulitis (AC). They obtained findings demonstrating short–term efficacy, but not long–term benefits of corticosteroid injections for AC.

Xiao RC, et al. **Corticosteroid injections for adhesive capsulitis: A review.** *Clinical Journal of Sport Medicine. May 23, 2017*

IS COMBINING GAIT RETRAINING OR AN EXERCISE PROGRAMME WITH EDUCATION BETTER THAN EDUCATION ALONE IN TREATING RUNNERS WITH PATELLOFEMORAL PAIN? AN RCT.

This randomised clinical trial aims to compare the effects of three 8–week rehabilitation programmes on symptoms and functional limitations of runners with patellofemoral pain (PFP). Despite the fact that gait retraining and exercises enhanced their targeted mechanisms, their addition to education did not provide additional benefits on symptoms and functional limitations. In runners with PFP, appropriate education on symptoms and management of training loads should be included as a primary component of treatment.

Esculier JF, et al. **Is combining gait retraining or an exercise programme with education better than education alone in treating runners with patellofemoral pain? An RCT.** *British Journal of Sports Medicine. May 18, 2017*

A COMPARISON OF THE GROUND REACTION FORCE FREQUENCY CONTENT DURING REARFOOT AND NON-REARFOUOT RUNNING PATTERNS

This article was composed with the objective to describe the waveform components of the ground reaction force (GRF) generated amid the effect phase by habitual rearfoot and habitual non–rearfoot pattern groups utilizing the continuous wavelet transform. While the effect force transient may not appear as a prominent feature within the time–domain GRF with a non–rearfoot pattern, the outcomes demonstrate that both footfall patterns generate frequencies related to the effect peak in the resultant and vertical GRF.

Gruber AH, et al. **A comparison of the ground reaction force frequency content during rearfoot and non-rearfoot running patterns.** *Gait and Posture. May 17, 2017*

IS MIGRAINE HEADACHE ASSOCIATED WITH CONCUSSION IN ATHLETES? A CASE-CONTROL STUDY.

This article was composed with the goal to examine the relationship between a migraine headache and concussion in athletes. These outcomes propose that there is a relationship between a migraine headache and concussion in athletes, but the cause–effect nature of this relationship cannot be determined. A migraine headache ought to be considered a modifying element when caring for concussed athletes

Eckner JT, et al. **Is migraine headache associated with concussion in athletes? A case-control study.** *Clinical Journal of Sport Medicine. May 15, 2017*

THE IMPACT OF OSTEOARTHRITIS ON DIFFICULTY WALKING: A POPULATION-BASED STUDY.

A population–based study was conducted to evaluate the association of hip and knee osteoarthritis (OA) to walking difficulty. This study indicated that symptomatic hip/knee osteoarthritis was the strongest contributor to walking difficulty. Given the importance of walking to engagement in physical activity for chronic disease management, greater attention to OA is warranted.

King LK, et al. **The impact of osteoarthritis on difficulty walking: A population-based study.** *Arthritis Care & Research. May 19, 2017*

SKELETAL MUSCLE FAT AND ITS ASSOCIATION WITH PHYSICAL FUNCTION IN RHEUMATOID ARTHRITIS.

Researchers undertook this study to define skeletal muscle fat (SMF), intermuscular adipose tissue (IMAT) and subcutaneous adipose tissue (SAT) in individuals with rheumatoid arthritis (RA), and evaluate the correlations between these fat depots and physical function and physical activity. The results displayed that fat infiltration within the muscle seems to independently contribute to low physical function and activity in contrast to intermuscular adipose tissue or subcutaneous adipose tissue accumulation. Longitudinal studies are necessary to confirm the impact of SMF on disability and promoting health in persons with RA.

Khoja SS, et al. **Skeletal muscle fat and its association with physical function in rheumatoid arthritis.** *Arthritis Care & Research. May 15, 2017*

PAIN RECURRENCE AFTER DISCECTOMY FOR SYMPTOMATIC LUMBAR DISC HERNIATION.

The aim of this study was to determine risks and predictors of recurrent pain following standard open discectomy for subacute/ chronic symptomatic lumbar disc herniation (SLDH). One- and three-year cumulative risks of leg pain recurrence were 20% and 45%, respectively. One- and three- year leg pain recurrence risks were substantially lower in participants with complete initial resolution of leg pain (17% and 41%, respectively) than in those without (27% and 54%, respectively). In multivariate analyses, complete leg pain, smoking, and depression predicted leg pain recurrence. The 1- and 3-year risk of LBP recurrence was 29% and 65%, respectively. LBP recurrence risk at 3 years was substantially lower in participants with complete initial resolution of LBP than in those without, but not at 1 year.

Pradeep S et al., **Pain Recurrence After Discectomy for Symptomatic Lumbar Disc Herniation.** *Spine: 15 May 2017 - Volume 42 - Issue 10 - p 755–763.*

EFFECT OF CARDIORESPIRATORY AND STRENGTH EXERCISES ON DISEASE ACTIVITY IN PATIENTS WITH INFLAMMATORY RHEUMATIC DISEASES

A comprehensive literature search was done to research the impacts of cardiorespiratory and strength exercises on disease activity for patients with inflammatory rheumatic diseases (IRDs). The outcomes of this review recommend beneficial impacts of exercises on inflammation, joint damage and symptoms in patients with IRDs.

Sveaas SH, et al. **Effect of cardiorespiratory and strength exercises on disease activity in patients with inflammatory rheumatic diseases: A systematic review and meta-analysis.** *British Journal of Sports Medicine. May 23, 2017*

DIETARY INTAKE OF FIBRE ASSISTS WITH THE RISK OF KNEE OSTEOARTHRITIS

Researchers assessed the link between fibre intake and risk of knee osteoarthritis (OA). They analyzed data from two longitudinal studies and found evidence for a consistent association of higher total fibre intake with a lower risk of symptomatic OA (SxOA), while the relation to radiographic OA (ROA) was unclear.

Dai Z, et al. **Dietary intake of fibre and risk of knee osteoarthritis in two US prospective cohorts.** *Annals of Rheumatic Diseases. May 26, 2017*

SUCCESSFUL RETURN TO SPORTS IN ATHLETES FOLLOWING NON-OPERATIVE MANAGEMENT OF ACUTE ISOLATED POSTERIOR CRUCIATE LIGAMENT INJURIES: MEDIUM-TERM FOLLOW-UP.

Researchers assessed the outcomes of non–operative treatment of high–grade posterior cruciate ligament (PCL) injuries, particularly Hughston grade III injuries. They observed that non–operative management within four weeks of injury resulted in excellent functional outcomes with high chances of return to the same or higher level of sport

Agolley D, et al. **Successful return to sports in athletes following non-operative management of acute isolated posterior cruciate ligament injuries: Medium-term follow-up.** *The Bone & Joint Journal. June 09, 2017*

DO PEOPLE WITH KNEE OSTEOARTHRITIS AND PHYSICAL THERAPISTS AGREE ON THE BEHAVIOURAL APPROACHES LIKELY TO SUCCEED?

Objectives of this study were to describe: (a) which behaviour change techniques (BCTs) to promote adherence to exercise have been experienced by people with knee OA or used by physical therapists; and (b) patient and physical therapist–perceived effectiveness of a range of BCTs derived from behavioural theory. When ranked by group mean agreement score, two BCTs were among the top five for both groups: establishment of specific goals related to knee pain and function; and review, supervision and correction of exercise technique at subsequent treatment sessions.

Nicolson PJA, et al. **Improving adherence to exercise: Do people with knee osteoarthritis and physical therapists agree on the behavioural approaches likely to succeed.** *Arthritis Care & Research. June 12, 2017*

TOTAL DISC REPLACEMENT VERSUS MULTIDISCIPLINARY REHABILITATION IN PATIENTS WITH CHRONIC LOW BACK PAIN AND DEGENERATIVE DISCS

The physicians compared the long–term relative efficacy of lumbar total disc replacement vs. multidisciplinary rehabilitation in patients with chronic low back pain and degenerative discs. They found substantial long–term improvement with both disc replacement and multidisciplinary rehabilitation. Between groups, the difference is statistically significant in favor of surgery but smaller than the pre–specified clinical important difference of 10 Oswestry Disability Index (ODI) points that the study was designed to detect.

Furunes H, et al. **Total disc replacement versus multidisciplinary rehabilitation in patients with chronic low back pain and degenerative discs: Eight-year follow-up of a randomized controlled multicenter trial.** *The Spine Journal. June 12, 2017*

And Furthermore

THE RELATIONSHIP BETWEEN SOCIAL SUPPORT AND DIET QUALITY IN MIDDLE-AGED AND OLDER ADULTS IN THE UNITED STATES.

An observational study was done to evaluate the connection between social support and overall diet quality among US adults. This study proposes a positive connection between social support and overall diet quality among middle–aged and older men, but not women, in the United States.

Pieroth R, et al. **The relationship between social support and diet quality in middle-aged and older adults in the United States.** *Journal of the Academy of Nutrition and Dietetics. May 09, 2017*

FRESH FRUIT CONSUMPTION AND ALL-CAUSE AND CAUSE-SPECIFIC MORTALITY: FINDINGS FROM THE CHINA KADOORIE BIOBANK

This article was composed with the goal to explore the relationship between fresh fruit intake and all–cause and cause–specific mortality. Among Chinese adults, the higher fresh fruit intake was related to majorly lower mortality from several major vascular and non–vascular diseases. Given the current low population level of fruit intake, substantial health benefits could be gained from increased fruit intake in China.

Du H, et al. **Fresh fruit consumption and all-cause and cause-specific mortality: Findings from the China Kadoorie Biobank**. *International Journal of Epidemiology. May 12, 2017*

DIET QUALITY IS LOWER AND ENERGY INTAKE IS HIGHER ON WEEKENDS COMPARED WITH WEEKDAYS IN MIDLIFE WOMEN: A 1-YEAR COHORT STUDY.

The goal of the study described in this paper is to depict dietary consumption by day and on weekends compared with weekdays. The outcome of this study suggests the midlife women must be encouraged to maintain diet quality amid weekends to improve overall diet quality scores.

Jahns L, et al. **Diet quality is lower and energy intake is higher on weekends compared with weekdays in midlife women: A 1-year cohort study.** *Journal of the Academy of Nutrition and Dietetics. May 17, 2017*

THE DIETARY APPROACHES TO STOP HYPERTENSION (DASH) DIET, WESTERN DIET AND RISK OF GOUT IN MEN: PROSPECTIVE COHORT STUDY

This trial is formulated in order to analyze the correlation between the Dietary Approaches to Stop Hypertension (DASH) and Western diets with the risk of gout in men. The DASH diet appears to be linked with a lower risk of gout. Its impact on lowering uric acid levels in patients with hyperuricemia displays a reduced risk of gout. On the other hand, the Western diet links with a greater risk of gout. In conclusion, DASH diet presents as a valuable preventive dietary strategy, for men at risk of gout.

Rai SK, et al. **The Dietary Approaches to Stop Hypertension (DASH) diet, Western diet and risk of gout in men: Prospective cohort study.** *BMJ. May 18, 2017*

EFFECTS OF EXERCISE ON LIVER FAT AND METABOLISM IN ALCOHOL DRINKERS.

This randomized controlled trial aimed to examine the effects of exercise on hepatic triglyceride content (HTGC) and metabolism in overweight or obese patients who consume alcohol. Researchers concluded that exercise significantly improved body composition and reduced hepatocyte apoptosis (cytokeratin–18), but did not reduce HTGC. This finding could indicate that alcohol consumption reduces the effects of exercise on non–alcoholic fatty liver disease (NAFLD) noted in previous studies. For people consuming alcohol, clinical care teams should look to use exercise as part of the management strategy, but the optimal benefit may be as an adjunct to alcohol reduction and weight management strategies.

Houghton D, et al. **Effects of exercise on liver fat and metabolism in alcohol drinkers.** *Clinical Gastroenterology and Hepatology. May 19, 2017*

Classifieds

BUSINESSES FOR SALE

VIC – ***YARRA VALLEY:*** A busy, modern, computerised (Smartsoft), vibrant, profitable practice with a great reputation in the Yarra Valley… and it's for sale! Established 2004 in a gorgeous tourist town. Busy multidisciplinary clinic with two chiros and 8 others. Great referral network with local GP's and allied health colleagues. Extremely easy practice to manage with great systems in place and skilled and dynamic managers. One hour from Melbourne. Three treatment rooms. Large, renovated, light filled rooms/house with amazing views enjoy. Manual and low force (Drop piece and activator) techniques used. All chattels included. Great price! Contact ssgspringtime@gmail.com

TO LET

NSW – ***NORTH SYDNEY:*** **Harbour Specialist Clinic** offers a new, modern and professional purpose-built consulting environment in the North Sydney CBD. It is located adjacent to a well established GP medical practice and a radiology practice. Each consulting room comprises a desk, office chair, two patient chairs, modern basin and LED lighting. A patient examination bed can be added on request. Contact: Margaret Seruga Phone: (02) 9188 1278 Email: info@harbourspecialistclinic.com.au

ASSOCIATES REQUIRED

NSW – ***TAREE:*** Our Chiro-Osteo practice is looking for a part-time associate. Starting at one day per week with plenty of scope for expansion. Hours very flexible. Prefer soft tissue based Chiro or Osteo. Taree is in the beautiful Mid North Coast region. Possibility of work in other practices in the area. Email tareecoc@gmail.com.au or phone Ian McLeod (02) 6552 6427 to discuss.

SA – ***MT GAMBIER:*** Keen associate required to take over existing patient base from Summer 2017/18. Long-standing general family practice, predominantly manual adjusting, low force techniques as clinically required. Modern, well organised practice with awesome support team, sEMG, digital postural analysis and digital x-ray facilities on-site. Set-hours, secure salary and bonuses available for high performers. No weekend work. Package includes training, relocation and accommodation assistance. More info and applications via: http://thechiropracticdomain.com.au/employment-opportunities/

NSW – *SYDNEY NORTHERN BEACHES:* Associate required – Immediate Start – Impulse Chiropractic is a well established multidisciplinary clinic on Sydney's Northern Beaches. We are seeking applicants to take over from our current Associate Chiropractor who is relocating interstate. Gain from an existing solid patient base of all ages with excellent client retention. If you are energetic, passionate, committed, and skilled in manual adjusting, activator, dry needling, soft tissue, peripherals, rehab and muscle testing we want you. Our team offers full support and clinic training, and a transition process with the departing Chiropractor to help you integrate into the practice. As an integral part of the clinic, you must be a team player and have demonstrated excellent health care and customer service. Please send all applications and enquiries to: aaron.fitzgerald@impulsechiropractic.com.au

NSW – *BONDI JUNCTION:* Are you a Chiropractor or an Osteopath? Here is your opportunity to walk straight in to a thriving business based in Sydney's Eastern Suburbs with Full Spectrum Health Solutions – Sydney's premier Injury Prevention and Rehabilitation Clinic – we have a team of dedicated health professionals, but are in need of a dynamic chiro or osteo to join our growing team…. IS THIS YOU?

- AN EXISTING CLIENT BASE IS NOT ESSENTIAL
- Conveniently located next to Westfields, Bondi Junction, and only minutes walk from Bondi Junction train and bus stations
- Your rent includes a FULLY FURNISHED 15 square metre room, equipped with desk, chairs, hydraulic table, shelving, towels, loads of natural light, internet and air conditioning. It also includes a joint waiting area at Reception, signage rights and street frontage.

For further enquiries, please contact Anthony Karsay on 0414 30 50 30

POSITIONS IN *MELBOURNE & BRISBANE:* Work Healthy Australia (Soft Tissue Centre) has a FT position available in MELBOURNE and BRISBANE for a chiro/osteo. We are an innovative, fast growing, company providing on-site treatment to companies nationwide. Our team have a multimodal evidence-based approach to care. Your role will predominantly be treating injuries. It will allow you autonomy, a variety in patient cases and work structure, challenges and mentoring. We are an clinical outcome driven company, with a focus on resolving patient problems quickly and effectively. We offer intensive, ongoing training and mentoring. We use a vast range of modalities including ART, DN, SFMA and IA. Attractive starting salary, vehicle, equipment and training allowance included. Please visit workhealthyaus.com.au for details and email us at recruitment@workhealthyaus.com.au with a cover letter and CV.

VIC – *OAK PARK:* ASSOCIATE POSITION FOR IMMEDIATE START. We are looking for an energetic and personable chiropractor for a part-time (3 days) position in our flourishing family practice. Solid new patient numbers. Extensive training and support. We are looking for someone with excellent manual diversified adjusting and soft tissue skills. Must have strong communication skills and really enjoy making a difference. Days are flexible but must be available Saturday mornings. If you are hard-working, reliable and ready for a change please email manager@oakparkfamilychiropractic.com.au

QLD – *MACKAY:* New chiropractic associate required for chiropractic clinic in Mackay. Currently expanding the clinic to include other disciplines and new location. Excellent remuneration package including bonus incentives. The successful applicant should have proficient manual adjusting skills, great communication and confident diagnostic skills. Please forward all enquiries to: admin@naturalcarechiropracatic.com.au

QLD – BRISBANE: Associate position in Teneriffe/Newstead, Brisbane. Funky, artistic, music-orientated wellness-based warehouse space. Associated with an adjoining Yoga/movement studio and seminar space. Established 10 years. Principal is a mixer (previous professional sports Chiro), utilising neurological and mechanical postural correction, neuro-emotional techniques, amongst others. We adjust families, athletes and professionals in a progressive, fun, vibrant suburb of brisvegas. Chiro philosophy, resourceful energetic attitude and health congruence is paramount. Email: dj@teneriffe-chiro.com for your interest and I'll email you a video of what I'm looking for and the great opportunity we are offering.

QLD – *CAIRNS:* Full time Chiropractor Position. The Cairns Health Clinic is looking to appoint a full time Chiropractor with strong hands on manual (incl. Manipulation) therapy skills for immediate start. Cairns is a Jewel in Far North Queensland, and is world renowned for its natural beauty, proximity to the Great Barrier Reef, home to the oldest rainforest in the world, amazing restaurants and bubbling nightlife. All of this and no traffic! Do what you love and have a lifestyle. If you would like to join our friendly team of professionals please forward your applications to: reception@cairnshealthclinic.com.au

NSW – *BONDI JUNCTION & NORTHERN BEACHES:* Health Space – Bondi Junction Clinic and the Northern Beaches. Exciting opportunity to join a fun and passionate team of practitioners from multiple professions. We have created an environment where Chiropractors, Physio, Massage therapist, Nutritionists, Acupuncturists and other modalities all combine to provide clients with the best possible outcomes. The 30 Health Space chiropractors use a large variety of techniques including Diversified, Thompson, IASTM, Toggle, ART, Dry needling, CBP, NET, TBM, Rocktape, SOT and we are ready to teach you as much as you are ready to learn. Nick@healthspaceclinics.com.au

WA – *PERTH:* Modern South of River Practice (15 minutes from CBD) is seeking a confident, passionate and motivated chiropractic associate to take over an existing patient base. The new associate must be patient-centered with a holistic approach and dedication to patient education. They will be expected to maintain and further build the existing patient base and must be comfortable treating patients of all ages. This position would suit either a new graduate or an experienced chiropractor. Techniques currently used include Diversified, Thompson, Activator, SOT and various Soft-Tissue techniques. For further information please email chiropractorperthsouth@gmail.com or call 0402 218 090.

QLD – *TOOWOOMBA:* FULL TIME ASSOCIATE REQUIRED TO JOIN BUSY SPORTS CHIROPRACTIC CLINIC. Brownlie Chiropractic is located in Toowoomba, a progressive major regional city of 160,000 people, only 75 minutes from Brisbane CBD. We are committed to providing the successful candidate with ongoing post graduate mentoring program. Excellent remuneration package, including annual incentive bonuses. The successful candidate should have excellent manual skills and communication, with an interest or experience in treating sports injuries and rehabilitation. Opportunities to work with local clubs and representative teams who we provide sports medical services for. Check out our facebook page or on the web at www.brownliechiro.com.au Please forward all enquiries to loubrownlie@bigpond.com

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