

Rewiring Pain Circuitry and Targeting Inflammatory Subtypes

Live Stream Seminar | 20th March 2022



With Professor Kerry Bone, Dr Elizabeth Steels and Laurence Katsaras

Seminar Content Outline

Persistent pain affects 1 in 5 Australians aged 45 years and over.¹ By 2050, it is estimated that the annual cost of chronic pain in Australia will rise to \$215.6 billion, partly due to an increasingly ageing population.¹

While disabling and stressful in itself, chronic pain syndrome (CPS) also encompasses alterations in mood, cognitive and sleep disturbances, fatigue, loss of libido, and/or physical disability. As such, CPS significantly affects quality of life and productivity. Further, individuals with chronic pain are more likely to have a reduced ability to carry out their day-to-day activities, leading to psychosocial and mental health consequences.

Chronic pain may also amplify neuronal responsiveness in pain pathways leading to increased sensitivity to pain and perpetuation of pain signalling. Further, unresolved localised inflammation and sustained release of inflammatory cytokines in the central nervous system reinforce this sensitisation, making it difficult to break the pain and inflammatory cycle.

To add to this, some individuals may have pre-existing neurocircuitry that physiologically primes them for pain. Various inflammatory subtypes also contribute to pain presentations and can fluctuate between individuals, and the course of a condition. Furthermore, the microenvironment, which determines local and systemic inflammation, can promote or inhibit the resolution of pain and inflammation.

These factors, in addition to the individual's drivers need to be considered within a holistic framework to successfully rewire pain circuitry.

¹ Chronic Pain in Australia (Full publication;16Apr2020Edition) (AIHW). Available from www.aihw.gov.au

Join us in this live stream where we will discuss:

- The primary pain pathways that modulate nociception and how inflammatory mechanisms influence pain.
- Categorisation of pain and inflammation by body tissue, the role of the immune system at the local and systemic levels, and common comorbidities.
- Specific pathology markers in inflammatory conditions, and clinical strategies to track and monitor pain.
- New understandings in the role of specific herbal and nutritional ingredients, and how they interact within the endocannabinoid, immune and central nervous systems.
- Targeted strategies for top-down and bottom-up management of pain and inflammatory conditions.
- Case studies demonstrating clinical applications of the above-mentioned learnings.

Date/Time

Sunday 20 March 10:00am - 4:00pm

*Times are based on AEST

Investment (LIVE STREAM/PURCHASE RECORDING)

Practitioners: \$49

Students: \$29

*Prices are in AUD and include GST

Live Stream: Watch the full event via live stream, participate in our Q&A sessions and receive digital notes and exclusive product specials.

Purchase Recording: Unable to attend? Select this option to receive all video recordings and digital resources.

CPE Points: this event is recognised for 4.5 contact learning hours. Check with your association for details.



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Session 1: Pain and Inflammation: New Adventures with Old Flames

Presented by Laurence Katsaras

BHsc(Nat) Adv.Dip(ClassHM) AdvDip(Nutr)

Chronic pain affects a significant number of people worldwide and exerts an enormous personal and economic burden. New and ongoing research characterises chronic pain as a disease with unique alterations in the peripheral and central nervous systems. The influence of biological, psychological, and social factors makes chronic pain a subjective experience, therefore personal responses to treatment vary. It is vital to understand and characterise individual pain phenotypes and tailor treatment accordingly.

In this presentation, Laurence Katsaras will discuss the latest understanding of the neurobiology of pain and provide clear clinical guidelines to treat chronic pain and inflammation effectively. Topics discussed include:

- Pain classification as a continuum with nociceptive, neuropathic and the recently named nociplastic pain often overlapping in people with chronic pain
- Pain mechanisms, peripheral and central nociception, and key features of chronic pain syndromes (CPS)
- Inflammatory pain and its role in CPS
- Latest understanding of key herbs, nutrients and lifestyle interventions and their role in modulating pain and inflammation



Session 2: PEA for Chronic Pain: Clinical Insights and Case Studies

Presented by Dr Elizabeth Steels

Adjunct Research Fellow, School of Pharmacy, University of QLD, PhD, BSc(Hon), GradDip(Nutr), GradCert(Ed)

Dr Beth Steels has been researching and treating chronic pain conditions with PEA for over 8 years and is currently focussing her research and clinic practice on diabetic peripheral neuropathy and endometriosis. Using a clinical- and case study- based approach, she will present, an in-depth review of the characteristics and sub-types of pain, and the interpretation of pathology including inflammation, in regard to these complex pain syndromes. She will also present trial results and specific case studies to showcase PEA dosing strategies and synergistic nutrient therapy to manage these chronic pain syndromes. Finally, she will discuss the use of endocannabinoid-based pain medications such as PEA as potential alternatives to opioids. In this session she will:

- Highlight the complexities and different presentations of pain, and the interconnectedness of chronic neuropathic pain, blood glucose levels, and low mood and sleep
- Discuss targeted PEA dosing and specific nutrient co-medication
- Identify latest research and new clinical applications for PEA in chronic pain management

Agenda

Sunday 20th March	
10:00am – 11.30am	Welcome and Session 1 – Laurence Katsaras
11.30am – 11.40am	Q&A
11.40am – 12:00pm	Break
12:00pm – 1.30pm	Session 2 – Dr Elizabeth Steels
1.30pm – 1.40pm	Q&A
1.40pm – 2:00pm	Break
2:00pm – 3:30pm	Session 3 – Professor Kerry Bone
3:30pm – 4:00pm	Q&A and Close

*Times are based on AEST



Session 3: Functional Herbal Therapies in the Management of Chronic Pain and Inflammation

Presented by Professor Kerry Bone

Director Research & Development - MediHerb;
Adjunct Professor - School of Applied Clinical Nutrition,
New York Chiropractic College - USA

Pain and inflammation are intricately associated. Acute inflammation is a fundamental defensive response of the body to initiate healing and dispel pathogens. But our inflammatory response is a two-edged sword, especially when inflammation does not resolve as it should and becomes chronic.

The effective herbal treatment of pain and inflammation has definitely improved, with increased clinical knowledge coming from both practical experience with herbs and successful controlled clinical trials. When this new herbal information is combined with the latest insights into disorders characterised by chronic pain and inflammation, a credible third option based on functional herbal therapy (FHT) does emerge.

In this presentation from Professor Kerry Bone you will learn:

- The four key sources of pain, together with the most appropriate herbs to use in support of each type
- The results from recent clinical trials involving ginger, willow bark and curcumin/turmeric and new leads for other potential pain- and inflammation-relieving plants
- FHT strategies for the complex, multifaceted nature of chronic pain syndromes, including chronic back pain, recurrent dysmenorrhoea, osteoarthritis, temporomandibular joint disorder (TMJ) and fibromyalgia syndrome
- Herbal options to assist with opiate drug issues