PAIN MECHANISMS: FROM MOLECULES TO TREATMENT
University of Minnesota, Twin Cities Campus, June 2-6, 2014
A course co-directed by Karolinska Institutet and University of Minnesota

Schedule
Monday, June 2 – Basic Concepts I
08:30 Welcome! Why study pain? Introductory concepts (G. Wilcox & R. Elde)
09:15 Nociceptors, nociception and pain (C. Honda)
10:00 Coffee Break
10:30 Molecules involved in the transduction of pain and itch (L. Vulchanova)
11:00 Dorsal horn structure and function (C. Honda)
12:00 Lunch on your own
13:00 Ascending nociceptive pathways (G. Giesler)
13:45 Descending inhibition and facilitation (M. Wessendorf)
14:30 Coffee Break
15:00 Peripheral and central sensitization (V. Seybold)
15:45 Intracellular signaling in pain transmission and sensitization (C. Svensson)
16:30 Current research in descending facilitation (D. Simone)
17:00 Adjourn

Tuesday, June 3 – Basic Concepts II, Assessment of Pain, and Immune/Glia Mechanisms
08:30 Trigeminal pain mechanisms (D. Bereiter)
09:15 Modulation of nociception by lipid mediators (V. Seybold)
10:00 Coffee Break
10:30 Neuroimmune interactions in chronic pain (A. Larson)
11:15 Role of glial activation in pain (C. Svensson)
12:00 Lunch on your own
Assessment of pain and nociception
13:00 Overview of clinical pain testing (J. Persson)
13:45 Sensory assessment in animals – measurement of spontaneous and evoked behavior (C. Fairbanks)
14:30 Coffee Break
15:00 Demo/Lab. Sensory testing and hyperalgesia (D. Simone)
15:45 Gene therapy of pain (C. Fairbanks)
16:30 Small group breakout sessions
17:00 Adjourn

Wednesday, June 4 – Pharmacology and Treatment of Pain
08:30 Mechanisms of action of established analgesic drugs (J. Persson)
09:15 Peripheral and central targets for new analgesic drugs (G. Wilcox)
10:00 Coffee Break
10:30 Rational clinical use of analgesic drugs (J. Persson)
11:15 Neuroimaging of pain (E. Kosek)
12:00 Lunch on your own
13:00 Cognitive behavioral interventions in the treatment of chronic pain - recent developments and future challenges (R. Wicksell)
13:45 Complementary and alternative therapies for chronic pain (J. Näslund)
14:30 Coffee Break
15:00 Preclinical studies of acupuncture in chronic pain (A. Beitz)
15:45 Animal models of acute and chronic inflammatory pain (G. Wilcox & C. Svensson)
16:00 Adjourn

Thursday, June 5 – Chronic Pain Syndromes – I
08:30 Chronic pain in the clinic – an overview (M. Belgrade)
Inflammatory pain
09:15 Clinical management of chronic pain using acupuncture (M. Belgrade)
10:00 Coffee Break
10:30 Clinical states with inflammatory pain and their treatment (J. Lampa)
Neuropathic Pain
11:15 Neuropathic pain in the clinic (P. Hansson)
12:00 Lunch on your own
13:00 Animal models of neuropathic pain (L. Vulchanova)
13:45 Mechanisms of fibromyalgia (A. Larson)
14:30 Coffee Break
15:00 Musculoskeletal pain and fibromyalgia (E. Kosek)
15:45 Preventing the development of chronic pain (J. Fricton)
16:30 Small group breakout sessions
17:00 Adjourn

Friday, 6 June – Chronic Pain Syndromes II and Cancer Pain
08:30 Cancer pain: causes, consequences and therapeutic opportunities (J. Persson)
09:15 Animal models of cancer pain - neurochemistry of tumor-nerve interfaces (G. Wilcox)
10:00 Coffee Break
10:30 Sex differences in pain and analgesia (J. Triemstra)
11:15 Visceral pain including IBS (J. Persson)
12:00 Lunch on your own
13:00 Temperomandibular disorder and headache (D. Nixdorf)
13:45 Coffee Break
Other Clinical States with Pain: Past and Future
14:15 Managing pain in non-verbal patients and patients with developmental disorders (F. Symons)
14:45 Interprofessional pain management (D. Nixdorf, A. Grande)
15:30 Closing Comments
15:45 Adjourn