



2018 IASP ELIP SIG SYMPOSIUM

Speaker abstracts

Prof James Giordano: From the neuroscience of pain to a neuroethics of pain research and care: Vistas, challenges, and opportunities

Current international initiatives in the brain sciences are focused upon translating research findings, techniques and technologies into ever more sophisticated approaches to assessing and treating neuropsychiatric conditions. The recent opioid crisis has brought into stark relief the importance and need for new and improved approaches to the evaluation and care of pain. In this lecture, Georgetown University neuroscientist and neuroethicist Prof. James Giordano will discuss the ways that novel developments in brain science are being engaged in pain research and care, and address neuroethical, legal and social challenges, opportunities - and responsibilities - fostered by the use of such developments.

Dr Smadar Bustan: From Philosophy to Medicine: assessing suffering in patients with pain

There is a possible shifting point in clinicians treating chronic pain and its key word is: human suffering. The reason is that while treatment effectively brings about a reduction in pain intensity in many patients, some continue to deny any improvements. This may result from focusing on the pain while neglecting to assess the related suffering. Although recent years have witnessed growing demands that physicians become more attentive in the evaluation of their patients' suffering, introduced by Eric Cassel (1982) as one of the fundamental goals of medicine, these concerns have proven difficult to follow in the absence of appropriate and simple methods healthcare professionals can use when dealing with patients who have conditions like chronic pain. Another constraint comes from the strong belief that assessing suffering in patients may be harmful to them. In response, I will explain what approach may measure suffering in patients with pain while evoking the two ethical concerns related to assessing suffering directly versus indirectly, and how overcoming these challenges is valuable to both patients and health caregivers.

Prof Sean Mackey: Brain Based Biomarkers of Pain: Objective Measures of Pain or a Journey Down the Rabbit Hole

Brain imaging has allowed us to open windows to the brain, to non-invasively study brain structure and function. Pain processing within the central nervous system (CNS), brain and spinal cord, and how it is disrupted in chronic pain, has been increasingly characterized using neuroimaging. However, to date, brain imaging (for example, functional MRI, PET, electroencephalography and magnetoencephalography) has provided minimal direct clinical application for pain. We believe that will soon change. Brain imaging is widely considered to have potential for diagnostics, prognostics, and prediction of treatment outcome in chronic pain. We will provide an overview of recent advances in the development of brain based biomarkers for pain that hold the potential for advancing the goal of precision pain management – finding the specific treatment for the specific person with the specific painful condition. We expect that brain based biomarkers will be used to help predict those who develop chronic pain or persistent opioid use after surgery, as well as for prognosis to identify who will respond to a particular treatment. Additionally, the topic of brain based biomarkers has generated much controversy over the past several years in the media, legal community and even in our own scientific community. We have recently published a consensus statement from the International Association for the Study of Pain which will be reviewed.

A/Prof Stuart Derbyshire: Brain imaging cannot reduce the subjective experience of pain to an objective measure of brain activity

Considerable efforts are now going into the use of brain imaging to produce an objective marker of pain. Such efforts face considerable technical difficulties because of the variability of brain imaging measures, techniques and analysis, and because of uncertainty as to what parts of the brain are critical for pain. Those problems might be reasonably expected to resolve with advances in technology and knowledge. But there is also a profound metaphysical problem with the attempt to produce an objective marker of pain, which I see as insurmountable. While brain imaging might tell us whether a particular neural area or circuit is active, it cannot tell us whether a person is or is not experiencing pain. It is perfectly reasonable to use brain imaging to rule in or out the presence of neural activity, because neural activity is an objective state that brain imaging is perfectly designed to measure. But it is entirely unreasonable to use brain imaging to rule in, or out, the presence of pain experience, because pain experience is a subjective feeling that brain imaging is entirely unable to measure.

Prof Amanda Pustilnik: Legal implications of adopting brain biomarkers for chronic pain

Pain is pervasive in law: as a reason that people seek redress; to allege the state is inflicting prohibited harms; and as a rallying cry for or against certain laws. But how does law know pain? Law's ideas of pain - what it is, what causes it, what real pain looks like - are so misdescriptive as to reward fraud and partisanship. Against this background, pain biomarkers would seem appealing - a simple fix for complicated problems. Yet, despite the sophistication of current research on chronic pain (1) it has not yet produced biomarkers, and (2) biomarkers in themselves would do little to improve outcomes in individual case unless there also were concomitant changes to legal doctrines, as evidence does not speak for itself.

In the absence of biomarkers, what can brain research do to improve legal outcomes in matters involving chronic pain? Something remarkable: In April, 2018, a US veterans court recognized chronic pain as a disability in itself on the ground that such pain can be neurologically maintained in the absence of ongoing (known) peripheral injury. This is a stunning repudiation of over 100 years of US jurisprudence on pain, directly resulting from recent pain neuroscience. This talk suggests that, while pain neuroscience cannot act as a "pain-o-meter," it already could make - and is starting to make - real change in legal doctrine and practice, increasing individual and systemic fairness and accuracy.

Prof Amanda Pustilnik: Legal implications of prescribing control: Individual rights vs community rights

The devastation of the opioid epidemic is beyond doubt, but its causes and remedies are up for grabs. National and multinational market actors, organized criminal actors, and a diverse range of medical and recreational abusers, all presenting a mix of civil, commercial, and criminal law issues, create the deadly matrix we have today. In this complex situation, there is a popular, easy target: the medical user, and his or her prescriber. In the US, every state has introduced prescription monitoring programs and nearly every state has prescribing restrictions. Practitioners may refuse to prescribe opioids at all, even to long-established patients. Is it appropriate to tolerate some harm to these patients to limit greater harm to the many, as lawmakers suggest when they advance these proposals?

This talk contends that focusing on established medical opioid users is a "look over there!" strategy that creates general harm by deflecting public attention from bad actors. Individual patients with chronic pain account for a very small percentage of original and current over-prescription and misuse. Instead, the opioid epidemic derives from more intractable problems: Large-scale commercial malfeasance domestically and internationally, illegal drug activity involving fentanyl and heroin, and certain long-term US social trends that make suburban and rural areas more receptive to drugs of abuse. Addressing these institutions, entities, and trends takes greater, sustained political will across more fronts, but it is where the front lines are.

Prof Jane Ballantyne: Ethical issues in prescribing opioids and cannabinoids

Some of the most difficult ethical dilemmas for clinicians concern the use of controlled substances. The difficulty is that controlled substances are addictive, yet they have important medical indications. They have the potential to

help, but also to do great harm. If there is a duty to treat pain, does that necessarily mean a duty to reduce pain's intensity, and how can the clinician balance benefit against a harm that is often only revealed months into the treatment when it is too late to go back?

Billie Jo Bogden: Patient perspectives on proof of pain to pain management

Pain is difficult to quantify and to the untrained eye, can go undiagnosed until it destroys every aspect of a patient's life. The social cost alone begs consideration, but the personal toll (both on this generation and the next) is why we should ask ourselves if we can do better. Patient advocate Billie Jo Bogden will provide a rich discussion of the patient experience when seeking timely and effective treatment for pain when medical and social systems seek to probe the validity of your pain experience, and increasingly regulate treatment access.