



# IADR

International Association  
for Dental Research

Press Counter  
IADR Registration Area  
Level 600, South Building  
Metro Toronto Convention Centre  
255 Front Street West  
Toronto, Ontario, Canada M5V 2W6  
+416.585.3760

## Rel 01 - NIDCR Symposium

Staff contact: Linda T. Hemphill  
+1.703.299.8091 or  
lhemphill@iadr.org

### NIDCR's 60th ANNIVERSARY SYMPOSIUM: CONTRIBUTIONS OF CANADIAN PAIN RESEARCH

**Toronto, ON, Canada** – Nearly everyone has experienced the acute, short-lived pain that occurs after a mild injury, but recent surveys reveal that more than 20% of the population has a chronic pain condition (i.e., pain that has lasted for 3 months or more) and for which treatment is often not very effective (e.g., low back pain, fibromyalgia, migraine headaches). Acute and chronic pain conditions have huge socio-economic costs. For example, in addition to the personal suffering and reduced quality of life that a chronic pain patient may experience, the economic burden (treatment costs, lost productivity, etc.) amounts to over \$80 billion/year in the USA and close to \$8 billion/year in Canada.

To help improve our understanding and treatment approaches of pain, the US National Institute of Dental and Craniofacial Research, which celebrates its 60th anniversary this year, has played a lead role in funding pain research in North America. Today, during the 86th General Session of the International Association for Dental Research, a Symposium will highlight the many contributions and recent advances made in pain research by Canadian scientists supported by the NIDCR.

Dr. Barry Sessle (University of Toronto) will provide an overview of this Canadian-based research, including his own studies that have focused on mechanisms underlying pain in the face and mouth. His studies have provided important insights into the brain pathways and processes that help explain many features of the common pain conditions of toothache, headache, and temporomandibular (“TMJ”) disorders. Dr. Catherine Bushnell (McGill University) has been a pioneer in the application of brain-imaging techniques to unravel the mysteries of human brain function in several pain conditions. Her recent imaging studies have found that remarkable structural and neurochemical changes occur in the brains of patients suffering from several different types of chronic pain, and that there may be differences between young and old adults in these changes. The studies of Dr. Ze’ev Seltzer (University of Toronto) have focused on the role of genetic and environmental factors in influencing the expression of pain. Dr. Seltzer will give examples showing that diet and certain genes can exert important influences on the development and maintenance of several acute and chronic pain conditions. He will also address potential improvements in therapeutic approaches that may flow from studies of pain genetics. The research of Dr. Jeffrey Mogil (McGill University) has also included pioneering studies showing the importance of environmental and genetic influences in pain. His presentation will highlight, in particular, his recent research success in improving animal pain models so that they reflect more closely the mechanisms underlying pain conditions seen clinically in humans, and thus will be more useful in providing insights into these conditions.

#### About the International Association for Dental Research

The International Association for Dental Research (IADR) is a non-profit organization with more than 10,800 individual members worldwide, dedicated to: (1) advancing research and increasing knowledge to improve oral health, (2) supporting the oral health research community, and (3) facilitating the communication and application of research findings for the improvement of oral health worldwide.

To learn more about the IADR, visit [www.iadr.org](http://www.iadr.org).

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This is a summary of a session entitled “NIDCR’s 60th Anniversary Symposium: Contributions of Canadian Pain Research”, to be held at 1:45 p.m. on Wednesday, July 2, 2008, in Room 701A of the Metro Toronto Convention Centre, Toronto, ON, Canada, during the 86th General Session of the International Association for Dental Research.